Qy	398	GCGCCCGGGGCTCCGGGAGAGAAAAGGCGAGGCG
DЪ	62	62 LeuProGlyLeuAlaGlyAspHisGlyGluLeuGlyGluLysGlyAspAlaGlyIlePro 81
Qy	440	GGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGAGGCGGGGACCC 490
₽b	82	GlyIleProGlyLysValGlyProLysGlyProValGlyProLysGlyAlaProGlyPro 101
Qy	491	GCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCC 541
Db	102	ProGlyProArgGlyProLysGlyGlySerGlyAspTyrLysAlaThrGlnLysValAla 121
Qy	542	TTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCCTTGCCCTTC 601
Db	122	PheSeralaLeuArgThrValAsnSeralaLeuArgProAsnGlnAlaIleArgPhe 140
Qy	602	GACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGC 661
Db	141	GluLysValIleThrAsnValAsnAspAsnTyrGluProArgSerGlyLysPheThrCys 160
Qy	662	CAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAG 721
Db	161	LysValProGlyLeuTyrTyrPheThrTyrHisAlaSerSerArgGlyAsnLeuCys 179
Qy	722	TTTGATCTGGTGAAGAATGGC 760
Db	180	ValAsnIleValArgGlyArgAspArgAspArgMetGlnLysValLeuThrPheCysAsp 199
Qy	761	TTCCAGTTTTTCGGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGG 805
Db	200	TyrAlaGlnAsnThrPheGlnValThrThrGly 210
Qy	806	GGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAACTGTGGGTGCAGGTGGGTGTGGGT 862
Db	211	GlyValValLeuLysLeuGluGlnGluGluValValHisLeuGlnAlaThrAspLysAsn 230
Qy	863	GACTACATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGGATTTCTGGTG 922
Db	231	SerLeuLeuGlyValGluGlyAlaAsnSerIlePheThrGlyPheLeuLeu 247
Qy	923	TACTCCGAC 931
Db	248	PheProAsp 250
Search co Job time	omple:	Search completed: June 21, 2003, 16:07:42 Job time : 63.5 secs

THIS PAGE BLANK (USPTO)

208 799 151

```
A Map position: 196.3-1994.1

C; Superfamily: complement subcomponent Clq chain A; complement Clq carboxyl-terminal is C; Superfamily: complement subcomponent Clq chain A; complement Clq carboxyl-terminal is C; Keywords: complement pathway; glycoprotein; heterodimer; hydroxylysine; hydroxyproll F; 1-27/Domain: signal sequence *status predicted cSIG>
F; 28-253/Product: complement subcomponent Clq chain B *status experimental cMAT>
F; 38-116/Domain: conlagenous, triple helix cOCL>
F; 123-249/Domain: complement Clq carboxyl-terminal homology cClQ>
F; 28/Modified site: pyrrolidone carboxylic acid (Gln) (in mature form) *status experimental F; 35,38,41,53,56,65,83,86,101,104,107/Modified site: 4-hydroxyproline (Pro) *status experimental F; 59,62,78,110/Modified site: 5-hydroxylysine (Lys) *status experimental F; 59,62,98,110/Modified site: carbohydrate (Lys) (covalent) *status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Molecule type: protein
A;Rosidues: 136-253 <RE4>
A;Rosidues: 136-253 <RE4>
A;Rote: 176-Glx may also be present
C;Comment: The first component of complement is a calcium-dependent complex of the three ivation of Clr (enzyme), Cls (proenzyme), and the other eight components of complement.
C;Comment: The Clq subcomponent is composed of nine subunits, six of which are disulfide (see PIR:C1HUQC) chain. Equimolar amounts of the A, B, and C chains are found after reduced.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: protein
A; Residues: 28-99, 'p', 101-195 < RE3>
R; Resid, K. B.M.; Gagnon, J.; Frampton,
Biochem. J. 203, 559-569, 1982
A; Title: Completion of the amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (see PIR:C1HUQC)
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biochem. J. 173, 863-868, 1978
A:Title: Amino acid sequence of the N-terminal 108 amino A;Reference number: A90301; MUID:79041552; PMID:708376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                      Best 1
Query
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Reference number: A90315; MUID:82283890; PMID:6981411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; MoLecule type: protein
A; Residues: 'E'.29-84, 'D', 86-99, 'P', 101-135
R; Reid, K.B.M.; Thompson, E.O.P.
Biochem. J. 173, 863-868, 1978
   밁
                                  Š
                                                                        밁
                                                                                               Q
                                                                                                                                             뫄
                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                  US-09-944-944-41 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: GDB:119043; OMIM:120570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Gene: GDB:C1QB
                                                                                                                                                                                                                                                                                                                                                                                                                           Match:
                                                                                                            416
                                                                                                                                                                                 356
                                                                                                                                                                                                                                                         296
   93
                                                                          73
                                                                                                                                              53
                                                                                                                                                                                                                     33
                                                                                         GAGAAAGGCGAGGGCGGGAGCCGGGGACCTCGAGGGGACCCCGGGCCGCGA 475
                                                                                                                                                                                 GlyProProAlaIleProGlyIleProGlyIleProGlyThrProGlyProAspGlyGln
                                                                                                                                                                                                                                                     ATCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGC
                                                                                                                                                                                                                                                                                          LeuMetLeuLeuLeuLeuGlyLeuIleAspIleSerGlnAlaGlnLeuSerCysThr
                                                                                                                                                                                                                                                                                                                              CTCCTCGTCCTGCTCCTGGGCCTGGCCGCCCGCTCGCCCCACTGGACGACAACAAG
                                                                      GluPheGlyGluLysGlyAspProGlyIleProGlyAsnProGlyLysValGlyProLys
GlyProMetGlyProLysGlyGlyProGlyAlaProGlyAlaProGlyProLysGlyGlu
                                        GGAGAGGCGGGACCC--
                                                                                                                                           ProGlyThrProGlyIleLysGlyGluLysGlyLeuProGlyLeuAlaGlyAspHisGly
                                                                                                                                                                                                                                                                                                                                                                                                                       4.05e-15
362.00
51.64%
36.89%
14.25%
                                                                                                                                                                                                                                                                                                                                                                  х С1НИОВ
                                                                                                                                                                                                                                                                                                                                                                  (1-253)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             codon ACA
                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the three collagen-like; PMID:486087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <RE5>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for residue
                                                                                                                                                                                                                                                                                                                                                                                                      253
90
36
100
18
                                    GCGGGGCCCACCGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ile
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      regions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #status experimen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            subcomponent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      present
                                                                                                                                             72
                                                                                                                                                                               415
                                                                                                                                                                                                                   52
                                                                                                                                                                                                                                                                                           32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       expe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sut
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement protein Clq beta chain precursor C;Species: Rattus norvegicus (Norway rat) C;Date: 16-Feb-1995 #sequence_revision 12-May C;Accession: S49158 R;Schwaeble, W.; Petry, F.; Loos, M.
                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:X71127; NID:g510191; PIDN:CAA50440.1; PID:g510192 C;Superfamily: complement subcomponent Clq chain A; complement Clq carboxy F;121-249/Domain: complement Clq carboxy1-terminal homology <ClQ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
S49158
                                               Š
                                                                                   뫄
                                                                                                                      δÃ
                                                                                                                                                              밁
                                                                                                                                                                                            Ωy
                   밁
                                                                                                                                                                                                                                    US-09-944-944-41
                                                                                                                                                                                                                                                                                          Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-253 <SCH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: S49158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Description: cDNA cloning and A; Reference number: S49158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Schwaeble, W.; Petry, F.; Loos, M. submitted to the EMBL Data Library, March
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                            Percent Similarity:
                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15
                                                       338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                132
                                                                                                                           287
                                                                                                                                                                                                  227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             509
                   42
                                                                                       22
                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGGGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -GTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAA---
                 ProGlyValProGlySerAspGlyLysProGlyThrProGlyIleLysGlyGluLysGly
                                                                                       ValSerTrpAlaGlnSerSerCysThrGlySerProGlyIleProGlyValProGlyIle
                                                                                                                           GACAACAAGATCCCCAGCCTCTGC-----CCGGGGCACCCCGGCCTTCCAGGCACG
                                                                                                                                                              LeuThrProLeuLeu---LeuLeuLeuLeuGlyLeu-----
                                                                                                                                                                                                LeuPheProAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :::|||:::
AsnTyrGluProArgSerGlyLysPheThrCysLysValProGlyLeuTyrTyrPheThr 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerGlyAspTyrLysAlaThrGlnLysIleAlaPheSerAlaThrArgThr---IleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGG
:::|||:::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGTACTCCGAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrGlyGlyMetValLeuLysLeuGluGlnGlyGluAsnValPheLeuGln-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaGlnLysValValThrPheCysAspTyr----AlaTyrAsnThrPheGlnValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TyrHisAlaSer---SerArgGlyAsnLeuCysValAsnLeuMetArgGlyArgGluArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValProLeuArgArgAspGlnThrIleArgPheAspHisValIleThrAsnMetAsnAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (1-1377)
                                                                                                                                                                                 =
=
=
                                                                                                                                                                                                                                                                                        5.02e-15
360.50
52.47%
36.12%
14.19%
                                                                                                                                                                                                                                      x S49158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    expression
                                                                                                                                                                                                                                    (1-253)
                                                                                                                                                                                                                                                                      Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1993
n of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #text_change
                                                                                                                                                                                                                                                                        253
95
43
76
49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  encoding
                                                                                                                                                              -----LeuHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                        carboxyl-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B-chain
```

of

C

41

337

21

Š

```
complement subcomponent C1q chain C precursor N.Alternate names; complement subcomponent C1c; Species: Homo sapiens (man) C:Date: 22-May-1981 #sequence_revision 31-May C:Accession: $14351; A03207 R; Sellar, G.C.; Blake, D.J.; Reid, K.B.M. Blochem. J. 274, 481-490, 1991 A; Title: Characterization and organization of A; Reference number: $14350; MUID:91174759; PM
                                                                                                                                            A; Map position: 1p36.3-1p34.1

A; Map position: 1p36.3-1p34.1

C; Superfamily: complement subcomponent Clq chain A; complement Clq carboxyl-terminal C; Superfamily: complement bathway; glycoprotein; homodimer; hydroxylysine; hydroxyprolin F;1-28/Domain: signal sequence #status predicted <SIG>
F;29-245/Product: complement subcomponent Clq chain B #status predicted <MAT>
F;31-114/Domain: collagenous, triple helix <COL>
F;121-244/Domain: collagenous, triple helix <COL>
F;121-244/Domain: complement Clq carboxyl-terminal homology <ClQ>
F;327Disulfide bonds: interchain #status experimental
F;36,39,42,45,54,63,81,39,56,99,105/Modified site: 4-hydroxyproline (Pro) #status experimental
F;37,72,75/Modified site: 5-hydroxylysine (Lys) #status experimental
F;75/Binding site: carbohydrate (Lys) (covalent) #status experimental
   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: protein
A; Residues: 29-56, 'p', 58-65,'K',67-71,'p',73-83,'K',85-86,'D',88-89,'N',91-122 <REI>C; Comment: The first component of complement is a calcium-dependent complex of the three ivation of C1r (enzyme), C1s (proenzyme), and the other eight components of complement. C; Comment: The C1q subcomponent is composed of nine subunits, six of which are disulfide dimers of the C chain. Equimolar amounts of the A, B, and C chains are found after reduced.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem. J. 179, 367-371, 1979
A;Title: Complete amino acid sc
A;Reference number: A90304; MU:
A;Accession: A03207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type:
A; Residues: 1-24:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
C1HUQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B . 5
                                                                                                                                                                                                                                                                                                                                                                       A;Gene: GDB:C1QG
A;Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                           C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Reid, K.B.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: not compared with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: S14350;
A; Accession: S14351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         yGlnTyrValHisSerSerPheSerGlyTyrLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATCAAGACAGCACCTTCTCCGGATTTCTGGTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gProGlyAspGlnValPheLeuGlnAsnProPheGluGlnAlaAlaGlyLeuTyrAlaGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGTGGCTACATTGGCATCTATGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       uTyrLysLysGlyPheLeuAspGlnAla----SerGlySerAlaValLeuLeuLeuAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCC---TCTTTCTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           aProValLysPheAspLysLeuLeuTyrAsnGlyArgGlnAsnTyrAsnProGlnThrGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   yIlePheThrCysGluValProGlyValTyrTyrPheAlaTyrHisValHisCysLysGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                       GDB:128132;
   2.01e-17
399.00
52.99%
39.84%
15.71%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d sequences of to MUID:80020137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 conceptual translation
                                                                                                                                                                                                                                                                                                                                                                         OMIM:120575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mponent Clq
Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-May-1996 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the three collagen-like PMID:486087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of the genes
PMID:1706597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chain
   245
100
33
84
34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-May-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        regions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Α-,
                                                                                                                                                                                                                                                                                             hydroxyproline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C-chain:
                                                                                                                                                                                     exper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĺ'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sut
                                                                                                                                                                                complement subcomponent C1q chain B precursor [validated] - huma N;Alternate names: complement subcomponent C1q beta chain C;Speciles: Homo sapiens (man) C;Date: 22-May-1981 #sequence_revision 31-May-1996 #text_change C;Accession: B23422; A23422; B90304; A90301; B90315; A03206 R;Reid, K.B.M.
                                   A; Note: the authors translated A; Accession: A23422
                                                                       A; Molecule type: DNA
A; Residues: 'HS', 1-32 <REI>
                                                                                                         Biochem. J. 231, 729-735, 19
A; Title: Molecular cloning a
A; Reference number: A23422;
A; Accession: B23422
                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ν
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
A; Molecule type: mRNA
A; Residues: 28-253 <R
                                                                                                                                                                                                                                                                                             стниов
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-944-944-41 (1-1377) x C1HUQC
                                                                                                                                                                                                                                                                                                                                                                                        899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      611
                                                                                                                                                                                                                                                                                                                                                      235
                                                                                                                                                                                                                                                                                                                                                                                                                            219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13
                                                                                                                                                                                                                                                                                                                                                  GGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCACCTTCTCCGGATTTCTGGTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                          ---LeuAlaValAsnAspTyrTyrAspMetValGlyIleGlnGlySer--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyLeuTyrTyrPheValTyrHisAlaSer---HisThrAlaAsnLeuCysValLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrArg----GlnThrHisGlnProProAlaProAsnSerLeuIleArgPheAsnAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCGCTCCGAGAGCCGGGTGCCCCCCCGCCGTCTGACGCACCCCTTGCCCCTTCGACCGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGGACCCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCCCGGGGCTCCGGGAGAGAAAAGGCGAGGCCGGGAGGCCGGGACCTGCGGGACCTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuLysLeuLeuLeuLeuLeuLeuLeuAlaLeuArg-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           asnGlnValAsnSerGlyGlyValLeuLeuArgLeuGlnValGlyGluGluValTrp---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrArgSerGlyValLysValValThr-----PheCysGlyHisThrSerLysThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              {\tt ProGlyGluProGlyGluGluGlyArgTyrLysGlnLysPheGlnSerValPheThrValled}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCTCGGTGCCTCCG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLysAsnGlyProMetGlyProProGlyMetProGlyValProGlyProMetGlyIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IleProGlyIleArgGlyProLysGlyGlnLysGlyGluProGlyLeuProGlyHisPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGGGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACAACAAGATCCCCAGCCTCTGC-----CCGGGGGCACCCCGGCCTTCCAGGCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTCGCTC---TCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProGlyLysAspGlyTyrAspGlyLeuProGlyProLysGlyGluProGlyIleProAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---GlyGlnAlaAsnThrGlyCysTyrGlyIleProGlyMetProGlyLeuProGlyAla
                                                                                                                                             1985
19 and
                                                                                                                              MUID:86076906;
                                                                                                                              characterization of the ID:86076906; PMID:3000358
                                                        the
                                                      codon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (1-245)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGT
                                                      for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---,----CGATCCGCCTTCAGCGCC
                                                      the
                                                      second
                                                                                                                                                 complementary
                                                      position
                                                                                                                                                                                                                         08-Dec-2000
                                                      as
                                                                                                                                                 DNA
                                                    Arg;
                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            517
                                                                                                                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        286
                                                      they
```

wer

cod

```
RESULT 12
$23779
$23779

collagen alpha 1(VIII) chain - mouse
C;Species: Mis musculus (house mouse)
C;Date: 10-Sep-1999 #sequence_revision 10
C;Accession: $23779
R;Muragaki, Y.; Shiota, C.; Inoue, M.; Oc
                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                    β δ
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 B 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            448
                                                                                                                                                                                                                                                                                                                                                                                         667
                                                                                                                                                                                                                                                                                                                                                                                                                              697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    448
                                                                                                                                                                      725
                                                                                                                                                                                                                                            705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   409
                                                                                                                                                            CACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAAATGGCGAATCCATTGCC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sAsnGlyGlyProAlaTyrGluMetProAlaPheThrAlaGluLeuThrAlaProPhePr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oGlyPheProGlyIleGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oProValGlyGlyProValLysPheAsnLysLeuLeuTyrAsnGlyArgGlnAsnTyrAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCCGGGTGCCT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACCGGGCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \tt oGlyAlaLeuGlyProGlnGlyGlnProGlyLeuProGlyProProGlyProProGlyProProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGGGCCACCATGGCAGCCAG------GGCTTGCCGGGCCGCGATGGCCGCGACGG
                                                                                                                                                                                                                                                                                                           rThrTyrAspGluTyrLysLysGlyPheLeuAspGlnAla-----SerGlySerAlaVa
                                                                                                                                                                                                                                                                                                                                                                                    lHisCysLysGlyGlyAsnValTrpValAlaLeuPheLysAsnAsnGluProValMetTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pMetGlyLeuGlyIleAspGlyValLysProProHisAlaThrGlyAlaLysLysGlyLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         o {\tt ProGlyProProAlaValMetProProThrProProGlnGlyGluTyrLeuProAs}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGCGACGCGCGCGCGGGGCTCCGGGAGAGAAAGGCGAGGCGGGAGGCCGGGACTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 eProGlyAspGlnGlyLeuGlnGlyProProGlyIleProGlyIleGlyGlyProSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyValProGlyLeuProGlyVal-ProGlyLeuLeuGlyProLysGlyGluProGlyIl 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCACTGGACGACAACAAGATCCCCAGCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLeuLeuLeuArgProGlyAspArgValPheLeuGlnMetProSerGluGlnAlaAlaGl
                                                                                                                                                                                                                                                                                                                                                   ------GCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProProGlyMetArgGlyPheProGlyProIleGlyProLysGlyGluHisGlyGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LysGlyGluProGlyLeuGlnGlyPheProGlyLysProGlyPheLeuGlyGluValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PheProGlyProLysGlyGluGlyGlyIleVal---GlyProGlnGlyProProGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----GGACCTCGAGGGGACCCCGGGCCGCGAGGAGGCGGGGACCCGGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -CTGCCCGGGCACCCCGGCCTT---
                   Ooshima,
                                                       10-Sep-1999
                 A . ;
                                                   #text_change
                   Ólsen,
                   B.R.;
                                                     16-Jun-2000
                 Ninomiya,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -CCAGGCAC
                                                                                                                                                                                                      925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                င္ပ
                                                                                                                                                                                                                                                                                                               705
                                                                                                                                                                                                                                                                                                                                                 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      387
                                                                                                                                                                                                                                                                                                                                                                                                                          754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                    밁
                                                                  õ
                                                                                                        В
                                                                                                                                     δÃ
                                                                                                                                                                               日
                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                        뮹
                                                                                                                                                                                                                                                                                    δã
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eur. J. Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No.:
                                                                                                                                                                                                                                                                                            467
                                                                                                                                                                                                                                                                                                                                                                                                                                           433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             490
                                    610
                                                                                                                                                 536
                                                                                                                                                                                                                       517
                                                                                                                                                                                                                                                                                                                                                                    466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             451
                                                                                                                                                                                 570
                                                                                                                                                                                                                                                                                                                                530
                                                                                                                                                                                                                                                                                                                                                                                                         510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70
```

```
A; Molecule type: DNA
A; Residues: 1-743 <MUR>
A; Residues: 1-743 <MUR>
A; Cross-references: EMBL: X66976; NID: 950493; PIDN: CAA47387.1; PID: 91359953
A; Cross-references: EMBL: X66976; NID: 950493; PIDN: CAA47387.1; PID: 91359953
C; Superfamily: collagen alpha 1(VIII) chain; complement C1q carboxyl-terminal homology <C1Q>
F; 616-742/Domain: complement C1q carboxyl-terminal homology <C1Q>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Title: Alpha-1(VIII)-collagen gene transcripts encode a short-chain collagen A;Reference number: S23779; MUID:92362626; PMID:1499564 A;Accession: S23779 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-944-944-41 (1-1377) x S23779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
oAlaTyrGluMetProAlaPheThrAlaGluLeuThrValProPheProProValGlyAl
                                                                                                                                                                                                                                                                                                   uGlyProGlnGlyGlnProGlyLeuProGlyProProGlyProProGlyProProGlyPr 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ||||||:::||||||||||:::|||
yProProGlyIleProGlyProLysGlyGluProGlyLeuProGlyProProGlyPhePr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGATGGCCGCGACGCCGACGGCGCGCCCGGGGAGAGAAAAGGCGAGGGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyLeu-ProGlyValProGlyLeuLeuGlyProLysGlyGluProGlyIleProGlyAs 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProGlyLeuProGlyIleProGlyProMetGlyProProGlyAlaIleGlyPheProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGGAGGGTCCGGAGCAGCCATCGGGGAGCCATCGGGGAGCCGGGA 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyProArgGlyGluLysGlyProIleGlyAlaProGlyMetGlyGlyProProGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCAGGGCAGGGGGCCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGCACCACCA-----
                                                                                            yIleAspGlyValLysThrProHisAlaTyrAlaGlyLysLysGlyLysHisGlyGlyPr
                                                                                                                                                                                               oProAlaValMetProThrProSerProGlnGlyGluTyrLeuProAspMetGlyLeuGl
                                                                                                                                                                                                                                                       GTGCTCGGTGCCTCCGCGA---
                                                                                                                                                                                                                                                                                                                                                                                                     oGlyValGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysProGlyAlaLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pGlnGlyLeuGlnGlyProProGlyIleProGlyIleValGlyProSerGlyProIleGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGCCG 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGACAACAAGATCCCCAGCCT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProLysGlyGluGlyCalValVal---GlyProGlnGlyProProGlyProLysGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProGlyLeuGlnGlyPheProGlyLysProGlyPheLeuGlyGluValGlyProProGly 450
                                                                                                                                                                                                                                                                                                                                                        -GGGCCGCGAGGAGAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       207, 895-902, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.02e-18
408.50
42.51%
31.82%
16.08%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1-743)
                          ----TCCGAGAGCCGGGTGCCT----CCGCCGTCTGACGC
                                                                                                                                                TCCGCCTTCAGCGCCAAGCGC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                     -GCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGA 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        743
119
40
123
92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          carboxyl-terminal homolog
<C1Q>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         432
630
                                               588
                                                                                                                                                                                                  590
                                                                                                                                                                                                                                                                                                                                                                                                       550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  430
                                                                                                                                                                                                                                                    535
                                                                                                                                                                                                                                                                                                                                                                                                                                                         466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polype
```

```
complement subcomponent C1q chain C C;Speciaes: Mus musculus (house mouse C;Date: 13-Jan-1995 #sequence_revisi C;Accession: S29328 R;Petry, F.; Reid, K.B.M.; Loos, M. Eur. J. Biochem. 209, 129-134, 1992.
                   Š
                                                   밁
                                                                               Š
                                                                                                              밁
                                                                                                                                          Ş
                                                                                                                                                                         В
                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: EMBL:X66295; NID:g50228; PIDN:CAA46993.1; PID:g50229
C;Superfamily: complement subcomponent Clq chain A; complement Clq carboxyl-terminal
F;122-245/Domain: complement Clq carboxyl-terminal homology <ClQ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ecerebellin.
A; Reference number:
A; Accession: $29328
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                      ρ
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-944-944-41 (1-1377) x S29328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local
Query Matcl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-246 < PE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Title: Isolation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    omplement subcomponent Clq chain C - mouse
|Species: Mus musculus (house mouse)
|Date: 13-Jan-1995 #sequence_revision 13-Jan-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10
                     620
                                                    129
                                                                                                                109
                                                                                                                                                                                                              467
                                                                                                                                                                                                                                                                            407
                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           555
                                                                                                                                                                                89
                                                                                                                                                                                                                                             69
                                                                                                                                                                                                                                                                                                            49
                                                                                                                                                                                                                                                                                                                                                                          29
                                                                                                                                                                                                                                                                                                                                                                                                                                         15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1-246 <PET>
GAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTAC
                                                 ThrThrGlnTyr---ProGluAlaAsnAlaLeuValArgPheAsnSerValValThrAsn
                                                                                GAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTCGCCCTTCGACCGCGTGCTGAAC
                                                                                                                                               TGCTCGGTGCCTCCGCGA----
                                                                                                                                                                             GlyProArgGlyThrSerGlyLeuProGlyAspProGlyProArgGlyProProGlyGlu
                                                                                                                                                                                                              GGGCCGCGAGGAGAGGCG-----
                                                                                                                                                                                                                                          ThrGlnGlyProLysGlyGlnLysGlyGluProGlyMetProGlyHisArgGlyLysAsn
                                                                                                                                                                                                                                                                         GCTCCGGGAGAAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                        AspGlyHisAspGlyLeuGlnGlyProLysGlyGluProGlyIleProAlaValProGly
                                                                                                                                                                                                                                                                                                                                         alaSerAlaGlyCysTyrGlyIleProGlyMetProGlyMetProGlyAlaProGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                      ATCCCCAGCCTCTGC-------CCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCTCGTCCTGCTCCTGGGCCTGGCCGGCTCGCCCCACTGGACGACAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lnAlaAsnGlyLeuTyrSerThrGluTyrIleHisSerSerPheSerGlyPheLeuLeu 632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProGlyValGluGlyArgTyrLysGlnLysHisGlnSerValPheThrValThrArgGln
                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuLeuLeuPheLeuLeuAlaLeu----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          roAlaThrTyrThrTyrAspGluTyrLysLysGlyTyrLeuAspGlnAla----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTACATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       laTyrHisValHisValLysGlyThrAsnValTrpValAlaLeuTyrLysAsnAsnValP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement C1q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence analysis and characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S29328; MUID:93011118; PMID:1396691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3.11e-18
412.00
55.74%
42.21%
16.22%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            carboxyl-terminal homology <C1Q>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (1-246)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                            -GGACCCGCGGGGCCCACCGGGCCTGCCGGGGAG
                                                                                                                                             TCCGCCTTCAGCGCCAAGCGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                      -----ProLeu---ArgSerGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
103
33
84
24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cDNA clones coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-Aug-1999
                                                 147
                                                                               619
                                                                                                                128
                                                                                                                                                                             108
                                                                                                                                                                                                                                             88
                                                                                                                                                                                                                                                                           466
                                                                                                                                                                                                                                                                                                                                         406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          803
                   679
                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                         48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            593
                                                                                                                                                                                                                                                                                                                                                                                                                                      28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       μ̈́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   collagen alpha 1(VIII) chain precursor - human
C:Species: Homo sapiens (man)
C:Date: 13-Jan-1995 #sequence_revision 13-Jan-1995
C:Accession: S15435
                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Map position: 3q11.1-3q13.2 (Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxyl-terminal homolog F;1-20/Domain: signal sequence #status predicted <SIG>F;21-744/Product: collagen alpha 1(VIII) chain #status predicted <MAT>F;21-117/Region: amino-terminal nonhelical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
S15435
                                               밁
                                                                           Š
                                                                                                              В
                                                                                                                                       Q
                                                                                                                                                                             밁
                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: GDB:COL8A1
A;Cross-references: GDB:128104; OMIM:120251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Title: The complete primary structure of the human alpha-1(VIII) A;Reference number: S15435; MUID:91231001; PMID:2029894 A;Accession: S15435
                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                     F;118-571/Region: interrupted helical F;572-744/Region: carboxyl-terminal nonhelical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-744 < MUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Muragaki, Y.; Mattei, M.G.; Yamaguchi, N.; Olsen, B.R.; Ninomiya, Eur. J. Blochem. 197, 615-622, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                        US-09-944-944-41 (1-1377) x S15435
                                                                                                                                                                                                                                                                                          Query
                                                                                                                                                                                                                                                                                                                                                                                                      F;617-743/Domain:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                           Match:
                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                369
                                                                                                                                                                             349 GlyIleGlyLysProGlyPheProGlyProLysGlyAspArgGlyMetGlyGlyValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         148
              GAGCCGGGA-
                                               ProGlyGluProGlyLeuProGlyIleProGlyProMetGlyProProGlyAlaIleGly
                                                                                                              GlyAlaLeuGlyProArgGlyGluLysGlyProIleGlySerProGlyIleGlyGlySer
                                                                                                                                             GGCGCCTGG-----CCGGGGGAGAAGCGCGGGGGGCTGGAGCACCACCAACTGGAGGGTCC
                                                                                                                                                                                                            GGAGGAAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuPheProAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGACTACATTGGCCATCCAGCATCAAGACAGCACCTTCTCCCGGATTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuAlaArgValAlaSerPheCysAspHisMetPheAsn---SerLysGlnValSer---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TyrPhe---ValTyrTyrThrSerHisThrAlaAsnLeuCysValHisLeuAsnLeuAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProGlnGlyHisTyrAsnProSerThrGlyLysPheThrCysGluValProGlyLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                      complement Clq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL: X57527;
                                                                                                                                                                                                                                                                           4.35e-18
409.50
40.95%
31.91%
16.12%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      931
                                                                                                                                                                                                                                                                                                                                                                                                      carboxyl-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NID: 930081;
                                                                                                                                                                                                                                           (1-744)
 GGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGG
                                                                                                                                                                                                                                                                                          Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIDN: CAA40748.1;
                                                                                                                                                                                                                                                                                                                                                                                                      homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #text_change 13-Aug-1999
                                                                               -GCCCCGAAGGAGGCCATCGGG
                                                                                                                                                                                                                                                                           744
127
36
135
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PID: 930082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and
                                                 408
                                                                               168
                                                                                                              388
                                                                                                                                             135
                                                                                                                                                                             368
                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         assignme
```

687 CCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCG 743	F;469-635/Domain: carboxyl-terminal nonhelical #status predicted <nc7> F;508-634/Domain: complement Clq carboxyl-terminal homology <clq></clq></nc7>
oz/ GACATTAGGAGGGGTCACCGGCAAGTTCACCTGCGAGGTGCCTGGGGTCTACTACTTCG 888 :::	C;Superfamily: collage alpha 1(VIII) chain; complement C1q carboxyl-terminal homology F;1-11/Domain: amino-terminal nonhelical (fragment) #status predicted <nc2> Db F:1-468/Region: interrunted helical</nc2>
515 erProLeuProAlaSerGlyMetProValLysPheAspArgThrLeuTyrAsnGlyH1sS	: GJB:COLBAZ : GJB:COLBAZ : GJB:127812; OMIM:120252
575ccgccgtctgacgcacccttgccccttcgaccgcgtgctgatgaacgagcagg	: GB:M60832; NID:g177178; PIDN:AAA62822.1; PID:g177179
495 lnPheGlyLeuGlyGluLeuSerAlaHisAlaThrProAlaPheThrAlaValLeuThrS 515	A; Residues: 1-635 <mur></mur>
7 574 574	Accession: A57131
 475 lyLeuHisLeuProAsnGlyGlyValGluGlyAlaValLeuGlyLysGlyGlyLysProG	short chain collagen fami
y 558CCGAGAGCCGGGTGCCT 574	R;Muragaki, Y.; Jacenko, O.; Apte, S.; Mattei, M.G.; Ninomiya, Y.; Olsen, B.R. Qy
y 528CTCCGGGATCCGCCTTCAGCGCCAAGCGCT557 	collagen alpha 2(VIII) chain - human (fragment) C;Species: Homo sapiens (man) C;Date: 03-Nov-1995 #sequence_revision 03-Nov-1995 #text_change 13-Aug-1999 Db
435 oGlyThrAlaGly-ProArgGlyProProGlyValProGlySerProGlyIleThrGlyP 455	RESULT 9 A57131
475	Db 725 yLeuTyrAlaGlyGlnTyrValHisSerSerPheSerGlyTyrLeuLeuTyr 742 Qy
418 sGlyGluProGlyLeuProGlyProProGlyGluGlyArgAlaGlyGluPr 435	QY 874 CATCTATGCCAGCATCAAGACAGCAGCACCTTCTCCGGGATTTCTGGTGTAC 925
421 AGGCGAGGCGGGAGCCCGGGACCTCGA	Db 705 lleuLeuLeuArgProGlyAspArgValPheLeuGlnAsnProSerGluGlnAlaAlaGl 725 Qy
398 yIleProGlyLeuGlnGlyProAlaGlyProIleGlyProGlnGlyLeuProGlyLeuLy 418	GAGGCTGGAGCCTGAG
361 CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCCCGGGGCT	Db 687 rThrTyrAspGluTyrLysLysGlyPheLeuAspGlnAlaSerGlySerAlaVa 705 Qy
5 385LeuGlyLeuProGlyGlnProGlyLeuArgGlyProSerGl 398	TICCAGTTTTCGGGGGGGTGGCCCAAGCCAGCCTCGCTCT
301 CAGCCTCTGCCCGGGGCA	Db 667 lHisCysLysGlyGlyAsnValTrpValAlaLeuPheLysAsnAsnGluProValMetTy 687 Qy
	GCAGTTTGATCTGGTG
241	Db 647 nProGlnThrGlyIlePheThrCysGluValProGlyValTyrTyrPheAlaTyrHisVa 667 Qy
551 AlaHisGlyProProGlyProThrGlyProLySGlyGluProGlyPheThrGly 368	QY 637 CGCCGTCACCGGCAAGTTCACCTGCCAAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGC 696 Db
Y 187 GCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT 240	Db 627 oProValGlyAlaProIleLysPheAspArgLeuLeuTyrAsnGlyArgGlnAsnTyrAs 647 Qy
:::	OY 577 GCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGA 636 Db
Y 127 GGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGACT 186	Db 607 sasnGlyGlyProAlaTyrGluMetProAlaPheThrAlaGluLeuThrAlaProPhePr 627 Qy
b 312 LeuArgGlyGluAlaGlyProGlyGlyProProGlyValProGlyIleArgGlyAspGln 331	QY 562 GAGCCGGGTGCCT Db
100AGCGCGGGGCTGGAGCA	Db 587 pMetGlyLeuGlyIleAspGlyValLysThrProHisAlaTyrAlaAlaLysLysGlyLy 607 Qy
b 292 GlyGlyProProGlyLeuProGlySerAlaGlyLeuProGlyArgArgGlyProProGly 311	Qy 539 Db
70	Db 567 oProGlyProProAlaValMetProProThrProAlaProGlnGlyGluTyrLeuProAs 587 Qy
5 272 GlyAspArgGlyGluProGlyGluAspGlyAspProGlyGluGlnGlyProGlnGlyLeu 291	QY 508 TGCCGGGGAGTGCCTCCGGGGATCC538 Db
Y 28 GGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGAC	Db 547 oGlyAlaLeuGlyProGlnGlyGlnProGlyLeuProGlyProProGlyProProGlyPr 567 Qy
US-09-944-944-41 (1-1377) x A57131 (1-635)	507
Query Match: 16.44% Indels: 102 DB: 2 Gaps: 15	Db 527 oGlyPheProGlyValGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPr 547
nt Similarity: 41.99% Conservative:	Оу 466 466
cores: 1.39e-18 Length: 417.50 Matches:	Oy 424 CGAGGGGGAGGCCGGGACTGCCGGGACCTCCGAGGGGACCCCC

Academic

```
A;Cross-references: DDBJ:D45371; NID:g871886; PIDN:BAA08227.1
A;Experimental source: adipose tissue
R;Nakano, Y; Tobe, T; Choi:Miura, N.H.; Mazda, T.; Tomita,
J. Biochem. 120, 803-812, 1996
A;Title: Isolation and characterization of GBP28, a novel gel
A;Reference number: JC4944
A;Nolecule type: protein
A;Residues: 19-38;93-100;101-112;135-149;173-178 <NAK>
C;Comment: This protein is an endogenous factor that binds wi
C;Genetics:
A;Gene: apM1
C;Superfamily: unassigned collagens; complement C1q carboxyl-
C;Reywords: adipose tissue; dlycoprotein; hydroxyproline
F;1-18;Domaln: signal sequence #status predicted <SIG>
F;19-244/Product: gelatin-binding 28kDa protein #status exper
F;114-241/Domain: complement C1q carboxyl-
F;230/Binding site: d-hydroxyproline (Pro) #status experiment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-41 (1-1377) x JC4708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;Superfamily: unassigned collagens; complement Clq carboxyl-terminal; Reywords: adipose tissue; glycoprotein; hydroxyproline; l-18/Domain: signal sequence #status predicted <SIG>;19-244/Product: gelatin-binding 28kDa protein #status experimental < 42-107/Region: collagen-like; 42-107/Region: collagen-like; 114-241/Domain: complement Clq carboxyl-terminal homology <ClQ>;295/Modified site: 4-hydroxyproline (Pro) #status experimental; 230/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Molecule type: protein (Molecule type: protein (Molecule type: 19-38) 93-100;101-112;135-149;173-178 <NAK>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cross-references: DDBJ:D45371; NID:g871886; PIDN:BAA08227.1; PID:g871887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scores:
                                                                                                                                               143
                                                                                                                                                                                                                                                                             572
                       749
                                                                163
                                                                                                                                                                                                                                     124
                                                                                                                                                                                                                                                                                                                  105
                                                                                                                                                                                                                                                                                                                                                                                                                                            464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        242
                                                                                                                                                                                                                                                                                                                                                                                                   85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCC---
                                                                                                                                               TyrAspGlySerThrGlyLysPheHisCysAsnIleProGlyLeuTyrTyrPheAlaTyr
                                                                                                                                                                                      TACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTC
                                                                                                                                                                                                                                ThrIlePro---AsnMetProIleArgPheThrLysIlePheTyrAsnGlnGlnAsnHis
                                                                                                                                                                                                                                                                         CCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGAACGAGCAGCAGGACAT
                                                                                                                                                                                                                                                                                                                GlyGluGlyAlaTyrValTyrArgSerAlaPheSerVal---GlyLeuGluThrTyrVal
                                                                                                                                                                                                                                                                                                                                                                                               ValProGlyAlaGluGlyProArgGlyPheProGlyIleGlnGlyArgLysGlyGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysGlyGluLysGlyAspProGlyLeuIleGlyProLysGlyAspIleGlyGluThrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGGCGAGGGCGGGACCGGGACTGCCGGGACCTCGAGGGGGAC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTTGCCGGGCCGATGGCCGCGACGGCCGACGGCGCGCCCCGGGGCTCCGGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuProLysGlyAlaCysThrGlyTrpMetAlaGlyIleProGlyHisProGlyHisAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValLeuLeuLeuAlaLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HisIleThrValTyrMetLysAspValLysValSerLeuPheLysLysAspLysAlaMet
                                                                                                                                                                                                                                                                                                                                                                                                                                        -,------CCCGGGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----ProGlyHisAspGlnGluThrThrGlnGlyProGlyValLeuLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5.56e-19
424.00
50.38%
40.46%
16.69%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1-244)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -CTTCCAGGCACGCCGGGCCACCATGGCAGCCAG
                                                                                                                                                                    Tomita,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----GlyThrProGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       244
106
26
72
58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gelatin-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             with a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             collagen-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AMAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein
                                                                                                                                               162
                                                                                                                                                                                                                                142
                                                                                                                                                                                                                                                                         631
                                                                                                                                                                                                                                                                                                                  123
                                                                                                                                                                                                                                                                                                                                                                                               104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      418
                                                                                                                                                                                                                                                                                                                                                        571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                purif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: S23298
                           Š
                                                                             뫄
                                                                                                                     Š
                                                                                                                                                                밁
                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                 δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Superfamily: collagen alpha 1(VIII) chain; complement Clq F;617-743/Domain: complement Clq carboxyl-terminal homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Ninomiya, Y.; Castagnola, P.; Gerecke, D.; Gordon, M.K.; Jacenko, O.; LuValle, maguchi, N.; Olsen, B.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
$23298
collagen alpha 1(VIII) chain -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-744 <NIN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: A; Accession: S23298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in Extracellular Matrix Genes, Sandell L.J. and Boyd C.D., eds., pp.79-114, Av. A; Title: The molecular biology of collagens with short triple-helical domains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-41 (1-1377) x S23298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               М
::
                                        364
                                                                                                                                                                  448
                                                                                                                                                                                                                                                      428
                                                                                                                                                                                                                                                                                                                                                                                                                    389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 349 GlyValGlyLysProGlyPheProGlyProLysGlyAspArgGlyIleGlyGlyValPro
                                                                                                                                                                                                                                                                                                                                                                            169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 HisAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22 GGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCGCC---
eProGlyAspGlnGlyLeuGlnGlyProProGlyIleProGlyIleThrGlyProSerGl
                                        GCCGGGCCGATGGCCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAGAGAAAAGG
                                                                             ProProGlyIleArgGlyLeuProGlyProIleGlyProLysGlyGluAlaGlyHisLys 467
                                                                                                                                                                                                           CCCACTGGACGACAACAAGATCCCCAGCCT-----
                                                                                                                                                                                                                                                  LysGlyGluProGlyLeuGlnGlyPheProGlyLysProGlyPheLeuGlyGluValGly
                                                                                                                                                                                                                                                                                                                                   PheProGlyProLysGlyGluGlyGlyIleVal---GlyProGlnGlyProProGlyPro
                                                                                                                                                                                                                                                                                                                                                                            GAGCCGGGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                  ProGlyGluProGlyLeuProGlyIleProGlyProMetGlyProProGlyAlaIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCA-----ACTGGAGGGTCCGGAGTAGCGAGC-----GCCCCGAAGGAGGCCATCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyAlaLeuGlyProArgGlyGluLysGlyProValGlyAlaProGlyMetGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACATTGGCATCTATGCCAGCATCAAGACAGCACCACCTTCTCCGGGATTTCTGGTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                valLeuLeuHisLeuGluValGlyAspGlnValTrpLeuGlnValTyrGlyGluGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuPheThrTyrAspGlnTyrGlnGluAsnAsnValAspGlnAla-----SerGlySer
                                                                                                                       ---CTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTT
                                                                                                                                                                                                                                                                                          GCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTG---GGTGTGGGTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S22243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6.74e-19
422.50
41.96%
31.41%
16.63%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chicken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1-744)
                                                                                                                                                                                                                                                                                                                                                                            GGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -TGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         744
125
42
131
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         carboxyl-terminal homolog
<C1Q>
```

Ş 밁 Qy 밁 Qy

DЪ

Š 밁 δ 밁 δ

507

487 363 306 447 276 427 216 408 168 120 368 81

388

80

밁 Š 밁 , 5 밁 Š 밁 Ş

Qy 121 CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCGGAAGGAGGCCATCGGG 168	22 GGAGGAGGAAAGCGGAGCCGG 349 GlyValGlyLysProGlyPhe 82 GGCGCC	Alignment Scores: Pred. No.: 426.50 Autches: Percent Similarity: 42.218 Best Local Similarity: 16.798 Query Match: 18.798 Conservative: 19.798 Indels: 100 Caps: US-09-944-944-41 (1-1377) x A34246 (1-744)		RESULT 6 A34246 Collagen alpha 1(VIII) chain precursor - rabbit C;Species: Oryctolagus cuniculus (domestic rabbit) C;Species: Oryctolagus cuniculus (domestic rabbit) C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999 C;Accession: A34246 R;Yamaguchi, N; Benya, P.D.; van der Rest, M; Ninomiya, Y. J. Biol. Chem. 264, 16022-16029, 1989 A;Title: The cloning and sequencing of alphal(VIII) collagen cDNAs demonstrate that type omains similar to those of type X collagen A;Reference number: A34246; MUID:89380199; PMID:2476437 A;Accession: A34246		### S85 gSerGlyIlePheThrCysLysIleProGlyIleTyrTyrPheSerTyrHisValHisVa 605 Qy 703 CTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAAAATGGCGAATCCATTGCCTCTTT 759
RESULT 7 JC4708 JC4708 gelatin-binding 28K protein precursor - human Willternate names: adipose specific collagen-like factor C.Species: Homo sapjens (man) C; bate: 10-May-1996 #sequence_revision 19-Jul-1996 #text_change 20-Sep-1999 C; hacesslon: JC4708; JC4944 R; Maeda, K.; Okubo, K.; Shimomura, I.; Funahashi, T.; Matsuzawa, Y.; Matsubara, K. Biochem. Biophys. Res. Commun. 221, 286-289, 1996 A; Filtle: cDNA cloning and expression of a novel adipose specific collagen-like factor A; Reference number: JC4708; MUID:96224171; PMID:8619847 A; Accesslon: JC4708 A; Molecule type: mRNA A; Residues: 1-244 <mae></mae>			562 GAGCCGGGTGCCT	Qy 467GGGCGGGAGGAGAGG 1	oflyPheProGlyValGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPro	

Pred. No.: 2.32e-20 Length: 680 Score: 446.00 Matches: 129 Percent Similarity: 39.31% Conservative: 42 Best Local Similarity: 29.66% Mismatches: 115 Query Match: 17.56% Indels: 149		Residues: 'SDG' Genetics: Gene: CollOa-1 Map position: 1	NID:950482; PIDN:CAA46237.1; PID:9667031 yne, R.; Balian, G. 8 o type X collagen. Biosynthetic studies using an an :88087150; PMID:2826450	en, B.R. X collagen genes and mappin MID:1587271 BL/DDBJ	3261348; 247,'L',2	A; Cross-references: EMBL:X63013; NID:g49795; PIDN:CAA44741.1; PID:g49796 R; Apte, S.S.; Olsen, B.R. Matrix 13, 165-179, 1993 A; Title: Characterization of the mouse type X collagen gene.	A: Title: Specific hybridization probes for mouse alpha-2(IX) and alpha-1(X) collagen mRN A; Reference number: S22215; MUID:92182017; PMID:1543751 A; Accession: S22215 A; Status: preliminary A; Molecule type: mRNA A: Residence: 385-450; K'. 452-627 < ELA>	on: S28807 e type: DNA s: 1-285,'A',287-680 <eli> references: EMBL:X67348; NID:g50480; PIDN:CAA47763.1; PID:g50481 K.; Metsaeranta, M.; Kallio, J.; Peraelae, M.; Eerola, I.; Garofalo Biophys. Acta 1130, 78-80, 1992</eli>	A KON> EMBL:Z21610; NID:g4979: 7.1; Rosat1, R.; Metsae 7.7-253, 1993 Collagen X gene: complet Collagen; MUID:93143676: S28807; MUID:93143676:	RESULT 5 S31216 Collagen alpha 1(X) chain precursor - mouse C; Species: Mus musculus (house mouse) C; Species: Mus musculus (house mouse) C; Species: Mus musculus (house mouse) C; Accession: S31216; S28807; S22215; S30127; I48299; S26397; S31830 C; Accession: S31216; S28807; S22215; S30127; I48299; S26397; S31830 R; Kong, R.Y.C.; Kwan, K.M.; Lau, E.T.; Thomas, J.T.; Boot-Handford, R.P.; Grant, M.E.; C Eur. J. Biochem. 213, 99-111, 1993 A; Title: Intron-exon structure, alternative use of promoter and expression of the mouse A; Reference number: S31216; MUID:93238750; PMID:8477738	Db 667 rGlyPheLeuVal 671
Qy Db	Qy Db	Qy Db	Db Qy	Ov Db Oy	o d dy	Qy Ob	Qy Db	. Qy Db Qy	Db Oy Db	US-09-9 QY Db QY	DB:
583 TGACGCACCCTTGGACCGCGTGCTGGTGAACGAGGAGCAGGACACTTACGACGCCGT 642	527 salaglyGlnArgProArgLeuSerGlyMetProLeuValSerAlaAsnHisGlyValTh 547 527 salaglyGlnArgProArgLeuSerGlyMetProLeuValSerAlaAsnHisGlyValTh 547 530CCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTC 582	-GGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCT	:::	427 1GlyAlaLysGlyValProGlyHisAsmGlyGluAlaGlyProArgGlyGluProGlyI1 447 364 GCCGGGCCGCGACGGCCGCGACGGCCCCGGGGCTCCGGGAGAAAAGG 423 :	331 331 407 yGlnLysGlyAspProGlyValGlyGlyThrProGlyLeuArgGlyProValGlyProVa 427 332GGCACGCCGGGCCACCATGGCAGCCAGGGCTT 363		348 -ProLysGlyIleProGlyAsnHisGlyIleProGlyAlaLysGlyGluIleGlyLeuVa 367 307 CTGCCCG	GCCACTCCTCGTCCTGCTGCTGCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGA	148 GCCCCGAAGGAGCCATCGGGGAGCCGGGAGGGGGGACT	-41 (1-1377) x S31216 (1-680) GGAAAGCCGGAGCCGCAAGCGAACCAAGGACTGGGGTGACGGCAGGGCAGGGGCGCCC :::	

		Qy 46 GGAGCGAACCAGGACTGGGGTGACGGCAGGGGCAGGGGGGGCGCCTGGCCG 93
	Ş	US-09-944-944-41 (1-1377) x S13301 (1-674)
	D 45	2 Gaps:
	בר ה ה	Best Local Similarity: 33.428 Mismatches: 12 Onerv March: 17 878 Indels: 85
AGCCTCGCTCTCGGGGGGGGCCATGGTGAAGCCTGGAGGACCAAGTGTGGGTGCA	y Qy	7.37e-21 Length: 454.00 Matches:
609 rlysAsnGlyThrProValMetTyrThrTyrAspGluTyrIleLysGlyTyrLeuAspGl 629	Ъ	ignment Scores:
733 GAAGAATGGCGAATCCATTGCCTCTTTCTGCAGTTTTTCGGGGGGGTGGCCCAAGCC 789	Qy	F:19-674/Product: collagen alpha 1(X) chain #status predicted <mat> F:547-673/Domain: complement C1q carboxyl-terminal homology <c10></c10></mat>
673 GGTCTACTACCTCGCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGT 732 ::: ::: ::: ::: 589 yIleTyrTyrPheSerTyrHisIleHisValLysGlyThrHisAlaTrpValGlyLeuTy 609	Db Qy	A; Gene: COL10Al C; Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxyl-terminal homology C; Superfamily: colled coil; extracellular matrix; glycoprotein; homotrimer F: 1-18 / Domain: signal sequence #status predicted cares
	Db s	Residu Cross Genet
:::::: eLeuSerLysAlaTyrProAlaIleGlyThrProIleProPheAspLysIleLe	ם ש	A;Title: Isolation of cDNAs encoding the complete sequence of bovine type X collagen. Ev A;Reference number: S13301; MUID:91113131; PMID:1703407 A;Accession: S13301 A:Molecule type: mRNA
553 GCGCTCCGAGAGCCGGGTGCTCCGGCGTTCTGACGCACCCTTGCCCTTCGACCGCGTGCT 612	Q g	Thomas
	p oy	C:Species: Bos primigenius taurus (cattle) C:Datc: 21-Nov-1993 #sequence_revision 23-Feb-1996 #text_change 13-Aug-1999 C:Accession: 81391
511 yProProGlyProProGlyGlnValAlaLeuProGluAspPheValLysAlaGlyGlnAr 531	Db s	RESULT 4 \$13301 collagen alpha 1(X) chain precursor – bovine
uProGlyLeuProGlyProProGl	da da	659 r
454 TCGACGGGACCCCGGGCCGCGAGGAGAGGCG	Qy	86 CATCAAGACAGCACCTTCTCCGGATTTCTG 919
 471 rProGlyProProGlyProAlaGlyIleAlaValLysGlyLeuAsnGlyProThrGlyPr 491	Db ·	Qy 826 GCCTGAGGACCAAGTCTGGGTCCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAG 885
GGACC	Qy	621 uTyrGlnLysGlyTyrLeuAspGlnAlaSerGlySerAlaValIleAspLeuMe
421 AGGCGAGGGCGGGAGGCCGGGACTGCCG	Db Qy	GTTTTTCGGGGGGGTGGCCCAAGCCAGCCTCGCT
	dd	\(\text{Ay} \) \(\text{AyConstructiveGryadaMicGCGATCCATGCC} - \text{TCTTTCTTCA} \) \(765 \) \(\text{13} \)
361 CTTGCCGGGCCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAGAGAA 420	Qy	581 yIlePheThrCysArgIleProGlyLeuTyrTyrPheSerTyrHisValHisAlaLysGl
307CTGCCCGGGCACCCCGGCCTCAGGCAGCCGGGCCACATGGCAGCCAGGG 360 :::	Db Qy	649 CAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTTCCACCGTCTACCG
GlyGluProGlyLeuAsnGlyProLysGlyAsnProGlyLeuProGlyProLysGlyAsp	Db	
256 GGGCCTGGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCCCCAGCCT 306	Qy	589 ACCCTTCGACCCTTCGACCTGGTGGTGGACGACACACATTTTTTTT
:::::: ::: AsnProGlyAlaLysGlyGluArgGlySerSerGlyLeuAspGlyLysProGlyTyrPro	Db	Qy 530 -CCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGGCCGGTGCCTCCGCCGTCTGACGC 588
202 CGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCGTCCTGCTGCTGCTCCT 255	Oy b	Db 523 rArgGluLeuSerGlyMetSerPheMetLysAlaGlyAlaAsnGlnAlaLeuThrGlyMe 543
	P 29	Qy 529 529
	D	Db 503 oGlyProProGlyProProGlyGlnSerThrIleProGluGlyTyrValLysGlyGluse 523
ACTGGAGGGTCCG	Qy	463 YETOFTOGLYFTOFTOGLYFTOLYSGLYASDSETGLYGLUFTOGLYLEUFTOGLYPTOFT
	Db	458GGGGACCCCGGGCCGAGGAGAGGCG

B.R

```
collagen alpha 1(X) chain precursor - chicken
N;Alternate names: type X collagen
C;Species: Gallus gallus (chicken)
C;Date: 07-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 13-A
C;Accession: S23297; A31896; S65594; S77711; I50218
R;Ninomiya, Y; Castagnola, P.; Gerecke, D.; Gordon, M.K.; Jacenko,
  maguchi, N.; Olsen, B.R. in Extracellular Matrix A; Title: The molecular b
                                                                                                                                                                                                                           RESULT
S23297
                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       β δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy Qy
                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             å
V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                β
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
Extracellular Matrix Genes, Sandell L.J. and Boyd C.D., eds., pp.79-114, Academic ritle: The molecular biology of collagens with short triple-helical domains.
                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                       650
                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                381
                                                                                                                                                                                                                                                                                                                                                      CACCTTCTCCGGATTTCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGATCTGGTGAAGAATGGCGAATCCATTGCC---TCTTTCTTCCAGTTTTTTCGGGGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCGCCAAGCGCTCCGAGAGCCGGGGGGGGCCTTCGGCCGTCTGACGCACCCTTGGCCCTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              oProGlyProArgGlyHisSerGlyGluProGlyLeuProGlyProProGlyProProGl
                                                                                                                                                                                                                                                                                                      rSerPheSerGlyPheLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                  rLeuAspGlnAla-----SerGlySerAlaIleIleAspLeuThrGluAsnAspGlnVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                eThrValIleLeuSerLysAlaTyr-----ProAlaIleGlyThrProIleProPheAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 uSerGlyThrProLeuValSerAlaAsnGlnGlyValThrGlyMetProValSerAlaPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               y {\tt ProProGlyGlnAlaValMetProGluGlyPheIleLySAlaGlyGlnArgProSerLe}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTGCCGGGGAGTGCTCGGTGCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCGGGCCGAGGAGAGGCG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               o {\tt ProGlyProAlaGlyIleAlaThrLysGlyLeuAsnGlyProThrGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGGAGGCCGGGACTGCCG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            yHisAsnGlyGluAlaGlyProArgGlyAlaProGlyIleProGlyThrArgGlyProIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuAspGlyProLysGlyAsnProGlyLeuProGlyProLysGlyAsp-ProGlyVal--
                                                                                                                                                                                                                                                                                                                                                                                                    lTrpLeuGlnLeuProAsnAlaGluSerAsnGlyLeuTyrSerSerGluTyrValHisSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lGlyLeuTyrLysAsnGlyThrProValMetTyrThrTyrAspGluTyrThrLysGlyTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nIleProGlyIleTyrTyrPheSerTyrHisValHisValLysGlyThrHisValTrpVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pLysIleLeuTyrAsnArgGlnGlnHisTyrAspProArgThrGlyIlePheThrCysGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              eGlyProProGlyIleProGlyPheProGlySerLySGlyAspProGlySerProGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -GlyGlyProProGlyLeuProGlyProValGlyProAlaGlyAlaLysGlyMetProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerProGlySer--
                                                                                                                                                                                                                                                                                                                                                      922
                                                                                                                                                                                                                                                                                                      677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----AspGlyLysProGlyTyrProGlyLysProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -GGACCCGCGGGGCCCACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -CCGCGATCCGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACCTCGAGGGGA
                                                                                                                          13-Aug-1999
                                                                          O.; LuValle,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            414
                                                                            ۳
:
                                                                            , MC
                            Pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Reference number: S222/
A;Accession: S23297
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-674 <NIN>
R;LuValle, P.; Ninomiya,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;LUValle, P.; Ninomiya, Y.; Rosenblum, N.D.; Olsen, B.R.
J. Biol. Chem. 263, 18378-18385, 1988
A;Title: The type X collagen gene. Intron sequences split the 5'-untranslated region A;Reference number: A31896; MUID:89054019; PMID:2461368
A;Accession: A31896
A;Accession: A31896
A;Accession: A31896
A;Minomiya, Y.; Gordon, M.; van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.!
J. Biol. Chem. 261, 5041-5050, 1986
A;Title: The developmentally regulated type X collagen gene contains a long open real A;Reference number: I50218; MUID:86108227; PMID:3082876
A;Accession: S65594
A;Accession: S65594
A;Rocession: S65594
A;Rocession: S65594
A;Rocession: S7', 9', D', 11-12, 'EDOMKLYILFTM', 30-31, 'TCKSGRAFTTYMILONVMADLVSSHT', 48-89, A;COSS-Teferences: EMBL:M13496; NID:9211699; PIDN:AAA48736.1; PID:9211700
A;COSS-Teferences: EMBL:M13496; NID:9211699; PIDN:AAA48736.1; PID:9211700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:M13496; NID:g211699; PIDN:AAA48736.1; PID A;Accession: S77711
A;Accession: S77711
A;Molecule type: protein
A;Molecule: 104-112,'X',114-117;453-466 (NIN2)
C;Superfamily: collagen alpha 1(VIII) chain; complement C1q carbox; C;Superfamily: collagen alpha 1(VIII) chain; complement C1q carbox; C;Keywords: colled coil; extracellular matrix; glycoprotein; homotic F;1-18/Domain: signal sequence #status predicted <SIG>F;51-18/Domain: signal sequence #status predicted <SIG>F;547-673/Domain: complement C1q carboxyl-terminal homology <C10>F;453,456/Modified site: hydroxyproline (Pro) #status experimental F;611/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                               δõ
                                                                                                                     멍
                                                                                                                                                                 δÃ
                                                                                                                                                                                                                      뮹
                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-944-944-41 (1-1377) x S23297 (1-674)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Match:
                                                                                                                                                                                                                                                                                                                             414
                                                                                                                                                                                                                           424
                            463
                                                                                                                                                                                                                                                                                                                                                                                                                              395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        365 ---PheProGlyAlaLysGlyGluArgGlyLeuPro------GlyLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         346 GlyGluAsnGlyLeuProGlyProLysGlyAspMetGlyProValGlyProAlaGly---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       eArgGlyProIleGlyProProGlyMetProGlyAlaProGlyAlaLySGlyGluAlaGl
                                                                                                                                                                                                                                                                                                                                                                        CCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCTGGCCGGGGAGAAGCGCGGGGGGCTGGAGCACCACCAACTGGAGGGTCCGGAGTAGCG
                       GAGGCCGGGACTGCCGGGACCTCGA-----
                                                                                                                                                                        CGATGGCCGCGACGGCGCGCGCGCCCCGGGGAGAGAAAGGCGAGGGCGG
                                                                                                                                                                                                                           GlyVal-ProGlyIleAsnGlyGluProGlyProArgGlyProSerGlyIleProGlyIl
                                                                                                                                                                                                                                                                       GGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGCCG
                                                                                                                                                                                                                                                                                                                             ProGlyProValGly----
                                                                                                                                                                                                                                                                                                                                                                                                                           HisProGlyLeuProGlyGlnLysGlyAspThrGlyHisAlaGlyPro---ProGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyLysPro-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----CGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCGTCCTGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6.38e-21
455.00
45.45%
34.09%
17.91%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -GlyTyrProGlyGluGlnGlyLeuProGlyProLysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length: Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative: Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         674
120
40
111
81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        predicted
                                                                                                                                                                                                                                                                                                                          -ProGlnGlyValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       carboxyl-terminal homolog
  homotrimer; hydroxyproli
                            483
                                                                                                                          463
                                                                                                                                                                           432
                                                                            457
                                                                                                                                                                                                                           443
                                                                                                                                                                                                                                                                            372
                                                                                                                                                                                                                                                                                                                               423
                                                                                                                                                                                                                                                                                                                                                                           312
                                                                                                                                                                                                                                                                                                                                                                                                                              413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84
```

```
A; Molecule type: DNA
A; Residues: 561-647, 'G', 649-666 <AP2>
A; Residues: 561-647, 'G', 649-666 <AP2>
A; Cross-references: EMBL: X58879; NID: 930013; PIDN: CAA41686.1;
A; Cross-references: EMBL: X58879; NID: 930013; PIDN: CAA41686.1;
B; Thomas, J.T.; Cresswell, C.J.; Rash, B.; Nicolai, H.; Jones, B; Thomas, J.T.; Cresswell, C.J.; Rash, B.; Nicolai, H.; Jones, Biochem. J. 280, 617-623, 1991
Biochem. J. 280, 617-623, 1991
                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 'TIPFYGWYCHYLL',52-680 <APT>
A; Residues: 'TIPFYGWYCWYCLL',52-680 <APT>
A; Cross-references: EMBL:x65120; NID:g23129
A; Note: the initial difference is probably due to trans:
R; Apte, S.; Mattei, M.G.; Olsen, B.R.
FEBS Lett. 282, 393-396, 1991
A; Title: Cloning of human alpha-1(X) collagen DNA and lo
A; Reference number: S15826; MUID:91243838; PMID:2037056
A; Accession: S15826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Homo saplens (man)
C;Date: 22-Nov:1993 #sequence_revision 03-Nov-1995 #text_change 22-Jun-1999
C;Accession: S26396; S30086; S15826; S18249; A43901; I51870; S21856
R;Reichenberger, E.; Beier, F.; LuValle, P.; Olsen, B.R.; von der Mark, K.;
FEBS Lett. 311, 305-310, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
GGHUID
collagen alpha 1(X) chain precursor - human
N;Alternate names: procollagen alpha 1(X) chain
C;Species: Homo sapiens (man)
C;Date: 22-Nov-193 #sequence_revision 03-Nov-10
C;Accession: S26396; S30086; S15826; S18249; A4
A; Molecule type:
A; Residues: 1-26,
                                  A; Title: The human collagen A; Reference number: $18249; A; Accession: $18249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Title: Genomic organization and full-length cDNA sequence A; Reference number: S26396; MUID:93012005; PMID:139733; A; Accession: S26396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                    A; Accession:
                                                                                                                                                                                                                                                                                                                                                                     submitted to the EMBL Data
A; Reference number: S30085
                                                                                                                                                                                                                                                                                                                                                                                                            R;Apte,
                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA .
A; Residues: 1-680 <REI>
                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: EMBL:X68952; EMBL:X72578; EMBL:X72579; EMBL:X72580; GB:S47714;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                    S30086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCACCTTCTCCGGATTTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGCTGCCTCCGCGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThrGlyLysPheThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            {\tt GluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerValProProArgSer}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerProValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaPheSerAlaLysArgSerGluSerArgValProProProSerAspAlaProLeuPro
 28-680
                                                                                                                                                                                                                                                                                                                                                                                     Library,
                                                     X gene. Complete MUID:92109659; PM
                                                                                                                                                                                                                                                                                                                                                                                       March
                                                     ce primary translated PMID:1764025
                                                                                                                                                                                                                                                                           translation
                                                                                                                                                                                                                     localization
                                                                                                           Jones,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of.
                                                                                                         PID:g30014
, T.; Solomon,
                                                                                                                                                                                                                                                                           of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        der Mark, K.; Bertling,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human
                                                                       sequence
                                                                                                                                                                                                                                                                           an
                                                                                                                                                                                                                       of
                                                                                                                                                                                                                                                                           intronic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        collagen
                                                                                                                                                                                                                       the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          219
                                                                       and
                                                                                                                                                                                                                     COL10A1 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                           [편
:
                                                                                                                                                                                                                                                                           sequence
                                                                                                         Grant,
                                                                                                                                                                                                                                                                                                                                                                                                                             GB:S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Σ
                                                                                                                                                                                                                                                                                                                                                    US-09-944-944-41
                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F;617/Binding site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Description: structural comp
be important for skeletogenesi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Note: a defect in C; Complex: type X co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Introns:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Status: translated from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Accession: I51870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 547-656 <RE2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: A43901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        520-680/Domain: amino-terminal 553-679/Domain: complement Clq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GDB:COL10A1
                                                                                                                                                                                                                                                                                                                                                      (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in this gene may cause Schmid collagen may be a homotrimer
                                                                                                                                                                                                                                                                                                                                                      ×
```

```
A; Residues: 520-597, 'D', 599-680 <WAL>
A; Cross-references: GB:S68531; NID:g545180; PIDN:AAC60615.1; PID:g545181
A; Note: mutant sequence from Pietret with metaphyseal chondrodysplasia type
A; Note: a second mutant sequence with 614-pro is also described
C; Comment: Prolines and lysines at the third position of the tripeptide repeated and subsequently 0-glycosylated.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: EMBL:X60382; NID:g30094; PIDN:CAA429: A;Note: the sequence from Fig. 3 is inconsistent with the R;Reichenberger, E.; Aigner, T.; von der Mark, K.; Stoss, Dev. Biol. 148, 562-572, 1991
A;Title: In situ hybridization studies on the expression A;Reference number: A43901; MUID:92077285; PMID:1743401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:M74050; GB:D57494; NID:g339884; PIDN:AAA61221.1; A;Note: sequence extracted from NCBI backbone (NCBIN:69012, NCBIP:69014) R;Wallis, G.A.; Rash, B.; Sweetman, W.A.; Thomas, J.T.; Super, M.; Evans am. J. Hum. Genet. 54, 169-178, 1994
A;Cross-references: GDB:128635; OMIM:120110
A;Map position: 6q21-6q22
                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number: I51870; MUID: 94136476; PMID: 8304336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Amino acid substitutions of conserved residues
                                                                                                                                                                                                                                                                                                                                                     GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NID:g30094; PIDN:CAA42933.1; is inconsistent with that fro von der Mark, K.; Stoss, H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the carboxyl-terminal doma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   type X
                                                                                                                                                          tripeptide repeating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           om Fig. 2 in Bertling,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PID:g30095
om Fig. 2 i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Evans,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           χ
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PID:g553796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            having
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fetal
```

C;Superfamily: collagen alpha 1(VIII) chain; complement C1q cc;Keywords: colled coll; extracellular matrix; glycoprotein; lF;1-18/Domain: signal sequence *status predicted <SIG>F;19-680/Product: collagen alpha 1(X) chain *status predicted F;19-56/Domain: amino-terminal nonhelical *status predicted <P;19-56/Domain: amino-terminal nonheli 57-519/Region: interrupted helical structural component of extracellular fibrous polymer specifically carbohydrate nonhelical #status predicted <NC1> carboxyl-terminal homology <C1Q> (Asn) (covalent) #status predicted <NC2> carboxyl-terminal homolog homotrimer; AMAT> hydroxylysin

metaphyseal chondrodysplasia

4.15e-21 458.00 42.78% 32.47% 18.03% CGHU1D (1-680)Gaps: Mismatches: Matches: Conservative: Indels: 126 40 123 123

Qy	qa	Qy	Φb	Qy	. d d	Qy	Ф	Qy	0
20	36	14	34	15	ω	~ 1	3(24.0
202 CGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCGTCCTGCT 249	363 GluThrGlyProAlaGlyProAlaGlyTyrProGlyAlaLysGlyGluArgGly	VAGGAGGCCATCGGGGAGCCGGGAGGGGGGACTGC	343 MetGlyProGlnGlyProLysGlyIleProGlySerHisGlyLeuProGlyProLysGly 362	121CCAACTGGAGGGTCCGGAGTA	323 GlyGluGlnGlyProAlaGlyLeuProGlyLysProGlyLeuThrGlyProProGlyAsn 342	зсеееест	303 LeuProGlyLeuLysGlyGluArgGlyProAlaGlyLeuProGlyGlyProGlyAlaLys 322	AACCAGGACTGGGGTGA	CO CO CAR DAR 41 (1 10/1) 4 (GROID (1 000)
249	380	201	362	141	342	120	322	, 78	

```
Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                            Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 10
Listing first 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -Q-Cgn2_1/USFTC_FD001/US09944944/runat_13062003_145847_22811/app_query.fasta_1.1543
-Q-Cgn2_1/USFTC_FD001/US09944944/runat_13062003_145847_22811/app_query.fasta_1.1543
-DB=PIR_73 -OFMT=fastan -SUFFIX=rpr -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -EnD=-1 -THR_TRIX=biDsum65 -TRANS=human40.cd1 -LIST=45
-DCCALICN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE-LOCAL
-OUTFMT=pto -NORM-ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER-US09944944_eCGN_1_1_37_erunat_13062003_145847_22811 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPOXT=0.5 -FGAPOP=6
-FGAPOXT=7 -YGAPOP=10 -YGAPOXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Command line parameters:
-MODEL=frame+_n2p.model -DEV=xlh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.
                                                                                                                                                                                         446
426.5
                                              424
422.5
417.5
412
409.5
408.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d. No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein search, using frame_plus_n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xgapop 10.0 , Ygapop 10.0 , Fgapop 6.0 , Delop 6.0 , I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR_73:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-41
2540
                                                                                                                                                                                                                                                                                                                                                            Match
                                                                                                                                                                                                                                                                                                                                                                                    Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        June 21,
  47.5
18.0
17.9
17.9
11.6.6
16.7
16.1
16.1
14.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           283224 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pir1:*
pir2:*
pir3:*
pir4:*
                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               n Match 100%
J first 45 su
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2003, 15:50:16 ; Search time 42.5 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96134422 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xgapext
Ygapext
Fgapext
Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chosen
  CGHU1D
S23297
S133017
S31216
A34246
JC4708
S23298
A57131
S29329
S23779
C1HUQC
C1HUQB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    summaries
                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (without alignments)
6229.511 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.1.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               566448
                                                                                                             hypothetical prote collagen alpha 1(x collagen alpha 1(x collagen alpha 1(x collagen alpha 1(x collagen alpha 1(y collagen alpha 1(y gelatin-binding 28 collagen alpha 1(y collagen alpha 1(y collagen alpha 2(y collagen alph
                                              complement subcomp
collagen alpha 1(V
collagen alpha 1(V
                        complement
                                                                                                                                                                                                                                                                                                                                                       Description
  subcomp
                                                                                                                                                                                      δ
Š
                                              В
                                                                                       Qy
                                                                                                                                          В
                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Reference number: Z18184
A; Accession: T14782
                                                                                                                                                                                                                                                                                                                                                                                                       Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                               Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.:
                                                                                            359
  419 AAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGA 478
                                              21
```

291.5	9 N	295.5	0 '	297	298	298	298.5	36	299	299	300	300.5	2	302	(4)	306.5	308	311	314	314	7	314.5	3	322	328	351	357	360.5
11.5	•		•	•	11.7	•	•	•	•	•	•		11.9	•	٠	•	٠		12.4		•	•	•	•	•	13.8	•	14.2
402	1373	730	מס מכ	1549	œ	4	888	779	964	673	4	4	1487	4	636	œ	1418	ď	245	245	4	4	0	1464	0	253	423	253
– •	د	N		'n	N	N	N		سا	۳	۳	۳	فسو	N	N	N	N	ب	N	_	N	N	_	_	_	N	N	N
CGBO2S	A43291	A36226	CGRULE	148103	S18803	S21626	S28791	CGBO1S	CGCH2S	CGBO6C	CGHU7L	B40333	CGHU6C	S59856	S41067	I50694	T45467	сснизв	S19018	C1HUQA	B41182	A41182	CGCH1S	CGHU1S	CGBO7S	4956	A55797	4915
Lagen	ollagen alpha	ollagen alpha	en alpha	ype VII collac	llagen alpha 1(ollagen alpha	llagen alpha 1(ollagen alpha 1(ollagen alpha 2(ollagen alpha 1(ollagen alpha 1(ollagen alpha 1(llagen alpha 1(lagen alpha 1(llagen alpha 1(llagen alpha 1(ollagen alpha 1(۱pha	complement subcomp	subcom	Lpha 1(gen alpha 1(alpha 1(gen alpha	agen alpha 1(plement Clq B	agen pı	complement protein

ALIGNMENTS

A; Molecule type: mRNA
A; Residues: 1-219 < OTTS
A; Cross references: EMBL: ALL110261
A; Experimental source: adult uterus; clone DKFZp586B0621
C; Genetics:
A; Note: DKFZp586B0621.1
C; Superfamily: complement Clq carboxyl-terminal homology R;Ottenwaelder, B.; Obermaier, B.; Mewes, H submitted to the Protein Sequence Database, hypothetical protein DKFZp586B0621.1 - human (fragment) C;Species: Homo sapiens (man) C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #tex C;Accession: T14782 US-09-944-944-41 (1-1377) x T14782 (1-219) GGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCGGGGCTCCGGGAGAG GlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGlyAlaProGlyGlu #sequence_revision 20-Sep-1999 #text_change 02-Sep-2000 9.37e-68 1207.00 100.00% 100.00% 47.52% Mewes, H.W.; Gassenhuber, J.; Wiemann, batabase, August 1999 Matches: Conservative: Mismatches: Indels: Gaps: 418 40 20

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length: 0
length: 2000000000
    100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           June 13, 2003, 16:01:52; Search time 48 Seconds
(without alignments)
541.261 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   408643 seqs, 106915682 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-944-944-42
1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MRPLLVLLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published_Applications_AA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                             : /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS07_PUBCOMB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS08_PUBCOMB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS09_NEW_PUB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS09_NEW_PUB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS10_NEW_PUB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS10_NEW_PUB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS10_NEW_PUB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS10_NEW_PUB.pep:*
    /cgn2_6/ptodata/1/pubpaa/JS10_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version Copyright (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                           DВ
                       ပပ္ခဲ့ပဲလိုက္သည္ အသက္သည္ အသ
                             US-09-944-403-42
US-09-944-896-42
US-09-944-907-42
US-09-944-907-42
US-09-944-907-42
US-09-944-907-362
US-10-121-049-362
US-10-123-904-362
US-10-175-746-362
US-10-175-746-362
US-10-175-746-362
US-10-175-746-362
US-10-176-918-362
US-10-176-918-362
US-10-176-918-362
US-10-176-918-362
US-10-176-918-362
US-10-176-918-362
US-10-176-918-362
US-10-142-431-362
                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         n 5.1.6
Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     408643
   sequence
                                                                                                                                                                                                                                                                                                                        Description
42, Appl
42, Appl
42, Appl
42, Appl
42, Appl
42, Appl
362, App
362, App
362, App
362, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-413-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 42,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. US20020156004A1
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/09944413
```

. 0	4.4	43	42	41	40	39	38	37	36	35 5	34	ω G	32	31	30		28	27		25		23	22	21	20
1323	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325
T00.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0					100.0							100.0
243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243
ď	φ	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
08-10-123-909-362	-10-123-	-123-902-	L,	-047-3	US-10-121-043-362	US-10-121-041-362	944-884-4	US-10-160-498-362		US-10-124-822-362		123-903	us-10-123-292-362	-10-121	-10-140-928	US-10-140-921-362	123-261-3	-236-3	d	US-10-143-032-362		US-10-121-050-362	1	-262-	US-10-142-419-362
	Sequence 362, App	Sequence 362, App	362	362,	Sequence 362, App	362	42,		362	362	362,		362,	362,		362,			362,	362,		362,		Sequence 362, App	

ALIGNMENTS

```
APPLICANT: Roy, Margaret
APPLICANT: Tumas, Daniel
APPLICANT: Tumas, Daniel
APPLICANT: Wood, William
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P2548P1C1
CURRENT APPLICATION NUMBER: US/09/944,413
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR APPLICATION NUMBER: 09/867,411
PRIOR FILING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR PRIOR APPLICATION NUMBER: 60/069,425
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,696
                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/069335
PRIOR TILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Napier, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Godowski, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kevin
```

```
ş
                                                                                                                                       : LENGTH: 243

: TYPE: PRT

: ORGANISM: Homo Sapien

US-09-944-413-42
                                                                            Query Match
Best Local Similarity
                                                              Matches
                                                                                                                                                                                                                                    PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER: 60/113,296

A APPLICATION NUMBER: 60/113,296

OR AILING DATE: December 22, 1998

OR FILING DATE: July 28, 1999

R APPLICATION NUMBER: 60/146,222

R FILING DATE: July 28, 1999

R APPLICATION NUMBER: 7-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R FILING DATE: December 16, 1998
N APPLICATION NUMBER: 09/218,517
OR FILING DATE: December 22, 1998
R APPLICATION NUMBER: 09/254,311
NR FILING DATE: MATCH 3, 199
R APPLICATION NUMBER: 07/US99/1252
R APPLICATION NUMBER: 07/US99/1252
R FILING DATE: June 22, 1999
                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: February 22, 2000
APPLICATION NUMBER: PCT/US00/05841
FILING DATE: March 2, 2000
APPLICATION NUMBER: PCT/US00/08439
FILING DATE: March 30, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US98/25108 FILING DATE: December 1 1000
                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US01/06520
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/US00/14042 FILING DATE: May 22, 2000 APPLICATION NUMBER: PCT/US00/20710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: February 11, 2000 APPLICATION NUMBER: PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020156004A1ember 30, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: February 25, 1998 APPLICATION NUMBER: 60/112,850
                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US99/28409 FILING DATE: No. US20020156004Alember 30, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 09/216,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: February 9, 19
APPLICATION NUMBER: 60/075,
FILING DATE: February 25, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/070,440 FILING DATE: January 5, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: PCT/US99/30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: Februar APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/068,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: December
                                                              243;
1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                           100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                    February 28,
)S: 120
                                                                                                                                                                                                                                                                                                                                July 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        January
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  December1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                September 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        December
                                                                                                                                                                                                                                                                                             December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCT/US99/21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT/US98/19330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                              PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60/074,086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9, 1998
0/074,092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /069,
                                                            0;
                                                                                                                                                                                                                                                                                                                                                /us00/20710
                                                         Score 1325;
Pred. No. 2.3
0; Mismatches
                                                         ; DB 9;
2.3e-89;
es 0;
                                                           Indels
                                                                                              Length
                                                                                                243;
                                                           0
                                                           Gaps
                       60
                                                            0
```

```
US-09-944-403-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                                                            PRIOR
                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: December 3, 19
PRIOR APPLICATION NUMBER: 60/069
PRIOR FILING DATE: December 11, 1
                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: P2548P1C1
CURRENT APPLICATION NUMBER: US/09/944,403
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Wood, William
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
                                                  PRIOR
                                                                                PRIOR
                                                                                               PRIOR
                                                                                                               PRIOR
                                                                                                                                PRIOR
                                                                                                                                                PRIOR
                                                                                                                                                               PRIOR
                                                                                                                                                                              PRIOR
                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60
PRIOR FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/067,411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                   APPLICATION NUMBER: 60/069,
                  FILING DATE: December 18, 1 APPLICATION NUMBER: 60/070,
                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/069, FILING DATE: December 11, 1
                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/069335
                                                 APPLICATION
                                                                                APPLICATION
                                                                                                               APPLICATION
                                                                                                                                FILING DATE:
                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                            FILING
                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/069,
FILING DATE: January
                                                                 FILING DATE:
                                                                                               FILING DATE:
                                                                                                                                               APPLICATION
                                                                                                                                                               FILING
                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  42,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2, Application US/09944403
US20020165143A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Filvaroff, Ellen Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Napier, Mary
Roy, Margaret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Godowski, Pau.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Botstein,David
                                                                                                                                                             DATE:
                                                                                                                                                                                                                          DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                 NUMBER:
                                                                                NUMBER:
                                                                                                               NUMBER: 60/069,870
                                                                                                                                               NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kevin
                                                                                                                                                            December
                                                                                                                                                                                           December
                                                                 December
                                                                                               December
                                                                                                                              December
                                                 830/08
                                                                              60/069,873
                                                                                                                                               er 16, 1997
60/069,702
                                                                                                                                                                              60/069,694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
```

```
밁
                                                                             Š
                                                                                                              밁
                                                                                                                                          δÃ
                                                                                                                                                                           В
                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                       ; ORGANISM: HOMO
US-09-944-403-42
                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 42
LENGTH: 243
TYPE: PRT
                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                       Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
FILING DATE: July 28, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/113,296
FILING DATE: December 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: NO. US20020165143Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: NO. US20020165143Alember 30, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/146,222 FILING DATE: July 28, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PC FILING DATE: March 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US99/28409 FILING DATE: No. US20020165143Alember 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/US99/21090 FILING DATE: September 15, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 0 FILING DATE: March 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US98/19330
                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: March 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: December 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: June 22,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/216,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: PCT/US98/25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/074,092
                   181
                                                   121
                                                                               121
                                                                                                              61
                                                                                                                                            13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LING DATE:
                                                                                                                                                                                                         1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NOS: 120
EFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                              {\tt APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD}
                                                                                                                               APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                          CATION NUMBER: PCT/US00/14042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATION NUMBER: PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NG DATE: December1, 1999
ICATION NUMBER: PCT/US99/30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DATE: February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DATE:
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                      Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       UMBER.

December 16, 1332

December 16, 1332

December 16, 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                   December 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                September
                                                                                                                                                                                                                                                                                                                                                                                                  February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          February
                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                    PCT/US01/06520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCT/US00/08439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCT/US99/12252
2, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09/254,311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /075,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           112,850
                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /US00/05841
                                                                                                                                                                                                                                                      Score 1325; DB 9;
Pred. No. 2.3e-89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1999
                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                      Length 243;
                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                       Gaps
                                                 180
                                                                             180
                                                                                                                                          120
                                                                                                            120
                                                                                                                                                                           60
                                                                                                                                                                                                       60
```

```
δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-896-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 42,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 09/866,028 PRIOR FILING DATE: 2001-05-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: CURRENT FILING DATE: 2001-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                            PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069315
PRIOR FILING DATE: December 11, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: DECEMBER: 60/069,425
PRIOR APPLICATION NUMBER: 60/069,425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: December 16, 1997 PRIOR APPLICATION NUMBER: 60/069,870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PPLICANT
                                                                                                                                                                                                                                         Apprication NUMBER: 60/074,086
FILING DATE: February 6
Apprication NUMBER: 60/074,086
APPLICATION NUMBER: FILING DATE: September: APPLICATION NUMBER:
                                                               APPLICATION NUMBER: 22, 1990 FILING DATE: December 22, 1990 FILING OATE: 00/146,222
                                                                                                              APPLICATION NUMBER: 60/112,850 FILING DATE: December 16, 1998 APPLICATION NUMBER: 60/113,296
                                                                                                                                                                                                               FILING DATE: February 9, 1998
APPLICATION NUMBER: 60/074,092
FILING DATE: February 9, 1998
                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/068, FILING DATE: December 18, 1 APPLICATION NUMBER: 60/070,
                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: December 16, 1997 APPLICATION NUMBER: 60/069,702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/069,694
                                                       APPLICATION NUMBER: 60 FILING DATE: July 28,
                                                                                                                                                                        APPLICATION NUMBER: 60/075, FILING DATE: February 25, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US20020168715A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/09944896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Godowski, Paul
Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumas,Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Roy,Margaret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Napier, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Botstein, David
NUMBER: PCT/US98/25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kevin
                  September 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         December 12,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-08-3
                    PCT/US98/19330
per 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/09/944,896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         069,696
```

```
80
                                                                                          RESULT 4
US-09-944-944-42
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                           돲
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-944-896-42
GENERAL INFORMATION:
APPLICANT: Baker, K
APPLICANT: Botstei
                                                     Sequence 42, Application US/09944944 Patent No. US20020173463A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 243; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: PCT/US01/06520 PRIOR FILING DATE: February 28, 2001 NUMBER OF SEQ ID NOS: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OR FILING DATE: MARCH 2, 2000

OR APPLICATION NUMBER: PCT/US00/08439

OR FILING DATE: MARCH 30, 2000

OR APPLICATION NUMBER: PCT/US00/14042

OR FILING DATE: MAY 22, 2000

OR APPLICATION NUMBER: PCT/US00/20710

OR APPLICATION NUMBER: PCT/US00/20710

OR FILING DATE: July 28, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NO 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: PCT/US99/28409
FILING DATE: No. US20020166715Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020166715Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28301
FILING DATE: December1, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: February 22, 2000 APPLICATION NUMBER: PCT/US00/05841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: February 11, 2000
APPLICATION NUMBER: PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/US99/30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: PCT/US
FILING DATE: September 15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/254,311
FILING DATE: MAICh 3, 1999
APPLICATION NUMBER: PCT/US99/1252
FILING DATE: June 22, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: December 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                241
                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                              VFA
VFA
                                                                                                                                                                                                                                                                                                                           APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                         MRPLLYLLLIGIAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                         FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                       APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                    FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
 Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                243
                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER: 09/218,517
                      Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     December 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 1325; DB 9; 100.0%; Pred. No. 2.3e-89; Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCT/US99/21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09/216,021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                             60
```

```
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR FILING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR FILING DATE: December 12, 1997
                                                                                                                                                                                                                                                               PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: P2548PIC1
CURRENT APPLICATION NUMBER: US/09/944,944
CURRENT FILING DATE: 2001-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                                                                        PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: December: 60/069,696
PRIOR APPLICATION NUMBER: 60/069,696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                FILING DATE: ELLY APPLICATION NUMBER: PCI/CATION NUMBER: PCI/US99/21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60
FILING DATE: February
APPLICATION NUMBER: 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/074
APPLICATION NUMBER: 60/074
APPLICATION February 9, 1
                                                                                    APPLICATION NUMBER: PCT/US99/12252
                                                                                                                                                                              APPLICATION NUMBER: 09/218,
                                                                                                                                                                                                                   APPLICATION NUMBER: 09/216,021
                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 6 FILING DATE: July 28,
                                                                                                                                                                                                                                                                                                                                                             APPLICATION |
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: February 25, 1998 APPLICATION NUMBER: 60/112,850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/070,440 FILING DATE: January 5, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: December 16, 1997 APPLICATION NUMBER: 60/069,870
                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                               APPLICATION
                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/068,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/069,702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60
FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Roy, Margaret
Tumas, Daniel
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Godowski,Paul
Grimaldi,Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Filvaroff, Ellen
Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Napier, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DATE:
NUMBER: PCT/US99/21090
: September 15, 1999
NUMBER: PCT/US99/28409
: No. US20020173463A1ember
                                                                                                                                                                                                                                                             NUMBER: PCT/US98/25108
                                                                                                                                                                                                                                                                                                                                                                            NUMBER: 60/113,
                                                                                                                                                                                                                                                                               NUMBER: PCT/US98/19330
September 16, 1998
                                                                                                                                                              December
                                                                                                                                                                                                     December
                                                                                                                                                                                                                                                                                                                                                             December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         December
                                                                                                                                                                                                                                                                                                                                                                                                                                         e 60/074,092
ary 9, 1998
60/075,945
ary 25, 1998
                                                                                                                                         er 22, 1998
09/254,311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            er 16, 1997
60/069,694
                                                                                                                                                                                                                                                                                                                                         60/146,222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/069,873
                                                                                                                                                                                                                                                                                                                          1999
```

30,

```
δĀ
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                  RESULT 5
US-09-944-907-42
                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                   ₽
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                         ρ
                                                                                                                                                                                                                                                                                                                                                                                                                              Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-944-944-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 42
LENGTH: 243
TYPE: PRT
                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                            Sequence 42, Ap
Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                         APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: PCT/US01/06520 PRIOR FILING DATE: February 28, 2001 NUMBER OF SEQ ID NOS: 120
                        APPLICANT:
                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR
              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: PCT/US00/14042 FILING DATE: May 22, 2000 APPLICATION NUMBER: PCT/US00/20710 FILING DATE: July 28, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: February 11, APPLICATION NUMBER: PCT/U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: December1, 1999 APPLICATION NUMBER: PCT/US99/30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PC: FILING DATE: March 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: No. US20020173463A1em APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: Decembe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: March 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: February
                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243;
                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                 VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                     APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                   MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                   Baker, Kevin
Botstein, David
                                                                                                                                                                                                                                                    VFA 243
                                                                                                                                                                                                                                                                                                   FFGGWPKPASLSGGAWRLEPEDQWWVQVGVGDYIGIYASIKTDSTFSGFLYYSDWHSSP
                                                                                                                                                                                                                                                                                                                 FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                 Godowski, Paul
Grimaldi, Christopher
                                                                         Gerritsen, Mary
Goddard, Audrey
                                                                                                Ferrara, Napoleone Filvaroff, Ellen
                                                                                                                                                                           Application US/09944907
Kljavin, Ivar
Napier, Mary
                                                                                                                            Eaton, Dan
                        Hillan, Kenneth
                                    Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER: PCT/US99/28313 : No. US20020173463Alember
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCT/US00/08439
30, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT/US00/05841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1325; DB 9;
Pred. No. 2.3e-89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
```

```
PRIOR APPLICATION NUMBER: 09/866,028

PRIOR FILING DATE: 2001-05-25

NUMBER OF SEQ ID NOS: 120

SEQ ID NO 42

LENGTH: 243

TYPE: PRT

ORGANISM: Homo Sapien

US-09-944-907-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-929-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best
NUMBER OF SEQ ID NOS: 120
SEQ ID NO 42
LENGTH: 243
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 42, Ap Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                           TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P.5248P1C1
CURRENT APPLICATION NUMBER: US/09/944,929
CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2011-05-25
                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1 CURRENT APPLICATION NUMBER: US/09/944,907

CURRENT FILING DATE: 2001-08-31
                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Baker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Tumas, Daniel APPLICANT: Wood, William
                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               {\tt MRPLLVLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGAPG}
                                                                                                                                                                           Wood, William
                                                                                                                                                                                         Roy, Margaret
Tumas, Daniel
                                                                                                                                                                                                                                                     Hillan, Kenneth
                                                                                                                                                                                                                                                                     Gurney, Austin
                                                                                                                                                                                                                                                                                  Godowski, Paul
Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                  Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09944929
                                                                                                                                                                                                                       Napier, Mary
                                                                                                                                                                                                                                       Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                   Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                 Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                 Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                  Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                Botstein,David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                              US20020197612A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            243
                                                                                                                                                                                                                                                                                                                                                                                                               Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1325; DB y;
Pred. No. 2.3e-89;
Pred-rener 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                            POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            243;
                                                                                                                                                            AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                            NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
```

```
Query Match
Best Local Similarity
Whiches 243; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-028-072-362; Sequence 362, A; Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANIŚM: Homo
US-09-944-929-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFO
APPLICANT:
APPLICANT:
                                                                                                                                                                                         CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/049911
PRIOR FILING DATE: 1997-06-18
PRIOR APPLICATION NUMBER: 60/056974
PRIOR FILING DATE: 1997-08-26
PRIOR PRIOR PRICATION NUMBER: 60/059113
PRIOR FILING DATE: 1997-09-17
                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
DR APPLICATION NUMBER: 60/059117
OR FILING DATE: 1997-09-17
OR APPLICATION NUMBER: 60/059122
OR FILING DATE: 1997-09-17
OR APPLICATION NUMBER: 60/059184
OR FILING DATE: 1997-09-17
OR APPLICATION NUMBER: 60/059263
OR APPLICATION NUMBER: 60/059352
OR APPLICATION NUMBER: 60/059352
OR APPLICATION NUMBER: 60/059352
OR APPLICATION NUMBER: 60/059358
OR APPLICATION NUMBER: 60/059358
                                                                                                                                                                APPLICATION NUMBER: 60/059115 FILING DATE: 1997-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APLPEDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQEDLVKNGESIASFEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                         Zhang
                                                                                                                                                                                                                                                                                                                                                         Watanabe,Colin K
Wood,William
                                                                                                                                                                                                                                                                                                                                                                                                                              Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                        Tumas,Daniel
                                                                                                                                                                                                                                                                                                                                                                                                 Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                     Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gerritsen, Mary E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/10028072
b. US20030004311A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1325; DB y;
Pred. No. 2.3e-89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                  PRIOR
                                                                                                                                                                            PRIOR
                                                                                                                                                                                                         PRIOR PRIOR
                                                                                                                                                                                                                                                                                PRIOR
                                                                                                                                                                                                                                                                                                                                          PRIOR
                                                                                                                                                                                                                                                                                                                                                                      PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR
                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                                                                 PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OR APPLICATION NUMBER: 60/063704
DR FILING DATE: 1997-10-29
DR APPLICATION NUMBER: 60/063733
DR FILING DATE: 1997-10-29
DR APPLICATION NUMBER: 60/063735
DR FILING DATE: 1997-10-29
R FILING DATE:
R APPLICATION N
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1997-10-17
APPLICATION NUMBER: 60/064248
FILING DATE: 1997-11-03
APPLICATION NUMBER: 60/064809
FILING DATE: 1997-11-07
                                          APPLICATION NUMBER: 60/
FILING DATE: 1998-02-09
APPLICATION NUMBER: 60/
                                                                                   APPLICATION NUMBER: 60/
FILING DATE: 1998-02-09
                                                                                                                                                                                                                                                                                            FILING DATE: 1997-11-24
APPLICATION NUMBER: 60/
FILING DATE: 1997-11-24
                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1997-11-21
APPLICATION NUMBER: 60/066453
FILING DATE: 1997-11-24
APPLICATION NUMBER: 60/066511
                                                                                                                                                                                                         APPLICATION NUMBER: 60 FILING DATE: 1997-12-1
                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60 FILING DATE: 1997-12-1
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/065186 FILING DATE: 1997-11-12 APPLICATION NUMBER: 60/065846 ETITIC PARTICIPATION NUMBER: 60/065846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/063561
FILING DATE: 1997-10-28
                                                                                                                FILING DATE:
                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                               APPLICATION NUMBER: 60/
FILING DATE: 1998-01-23
                                                                                                                                                                            FILING DATE: 1997-12-16
                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/063755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/063738
FILING DATE: 1997-10-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/
FILING DATE: 1997-10-28
                                                                                                                                                                                                                                      FILING DATE: 1997-12-11
                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1
                  : 1998-03-12
NUMPER: 60/077791
 NUMBER: 60/078910: 1998-03-20
                                                                                                                   1998-02-04
                                                                                                                                                                                                                                                                                                                                                                                                   60/066364
                                                                       60/074092
                                                                                                    60/074086
                                                                                                                                 60/073612
                                                                                                                                                              60/072320
                                                                                                                                                                                         60/069694
                                                                                                                                                                                                                        60/069334
                                                                                                                                                                                                                                                   60/069278
                                                                                                                                                                                                                                                                                60/069212
                                                                                                                                                                                                                                                                                                             60/066770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60/063550
```

OR APPLICATION NUMBER: 60/063082
OR FILING DATE: 1997-10-31
OR APPLICATION NUMBER: 60/063127
OR FILING DATE: 1997-10-24
OR APPLICATION NUMBER: 60/063327
OR APPLICATION NUMBER: 60/063327
OR APPLICATION NUMBER: 60/063329
OR APPLICATION NUMBER: 60/063329
OR APPLICATION NUMBER: 60/063329
OR FILING DATE: 1997-10-27 FILING DATE: 1997-10-24
APPLICATION NUMBER: 60/063045
FILING DATE: 1997-10-24 APPLICATION NUMBER: 60
APPLICATION NUMBER: 60
TOTAL DATE: 1997-10-FILING DATE: 1997-09-19 APPLICATION NUMBER: 60/ FILING DATE: 1997-09-24 APPLICATION NUMBER: 60/062816 FILING DATE: 1997-10-17 APPLICATION NUMBER: 60/ APPLICATION NUMBER: 60/062285 FILING DATE: 1997-10-17 APPLICATION NUMBER: 60/062287 60/062814 60/059836

APPLICATION NUMBER: 60/079294

```
DR FILING DATE: 1998-06-10

DR APPLICATION NUMBER: 60/088810

DR FILING DATE: 1998-06-10

DR APPLICATION NUMBER: 60/088858

DR FILING DATE: 19/98-06-11

DR APPLICATION NUMBER: 60/089532
                                                                     APPLICATION NUMBER: 60/089907
FILING DATE: 1998-06-18
APPLICATION NUMBER: 60/089947
FILING DATE: 1998-06-19
                                                                                                                                 APPLICATION NUMBER: 60/089599
FILING DATE: 1998-06-17
APPLICATION NUMBER: 60/089907
                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/
FILING DATE: 1998-06-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/085697
FILING DATE: 1998-05-15
APPLICATION NUMBER: 60/085704
FILING DATE: 1998-05-15
FILING DATE: 1998-06-23
APPLICATION NUMBER: 60/090429
FILING DATE: 1998-06-24
                                                                                                                                                                                            FILING DATE: 1998-06-
                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/087106 FILING DATE: 1998-05-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/086414
FILING DATE: 1998-05-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-05-15
APPLICATION NUMBER: 60/085579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/081817
FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/081818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/080165 FILING DATE: 1998-03-31
                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/088026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-05-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/085339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/085338 FILING DATE: 1998-05-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60 FILING DATE: 1998-05-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/084637 FILING DATE: 1998-05-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/084627 FILING DATE: 1998-05-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-05-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1998-04-28
APPLICATION NUMBER: 60/083545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/
FILING DATE: 1998-04-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-04-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-03-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-05-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-04
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/083322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1998-04-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/081203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1998-04-14
                                                                                                                                                                                                                                                                                                                                                                                             1998-06-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1998-05-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1998-04-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1998-04-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1998-02-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1998-03-
                                                                                                                                                                                                60/089532
6-17
                                                                                                                                                                                                                                                                                                                                  60/088741
                                                                                                                                                                                                                                                                                                                                                                         60/088730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/086430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/085149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60/081695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60/081229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60/079728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/079663
                                                        60/090349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60/085323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/082999
```

```
; ORGANISM: Homo Sapien US-10-121-049-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
US-10-121-049-362
                                      Prior Application
NUMBER OF SEQ ID NOS: 5
SEQ ID NO 362
LENGTH: 243
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 362, A
Publication No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                           TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C17
                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/091519
PRIOR FILING DATE: 1998-07-02
PRIOR APPLICATION NUMBER: 60/091982
PRIOR FILING DATE: 1998-07-07
                                                                                               CURRENT APPLICATION NUMBER: US/10/121,049
CURRENT FILING DATE: 2002-04-12
                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                PPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/090863 FILING DATE: 1998-06-26 APPLICATION NUMBER: 60/091360 FILING DATE: 1998-07-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-06-
                            PRT
                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                     Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLYYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                         Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                         Zhang, Zemin
                                                                                                                                                                                     Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                   Tumas, Daniel
                                                                                                                                                                                                                           Stewart, Timothy A
                                                                                                                                                                                                                                                                                                                               Gao, Wei-Qiang
                                                                                                                                                                                                                                               Smith, Victoria
                                                                                                                                                                                                                                                                                                                  Gerritsen, Mary E
                                                                                                                                                                                                                                                                                                                                              Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                         DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                        Beresini,Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/10121049
b. US20030022239A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1998-06-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Sc. 100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                      ۳.
                                                                                    removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60/090538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1325; DB 9;
Pred. No. 2.3e-89;
Mismatches 0;
                                                                                    See
                                                                                   File
                                                                                 Wrapper or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
```

Query Match

100.0%;

Score 1325;

DB 9;

Length 243;

180

```
å
                                            밁
                                                                 Q
                                                                                                   밁
                                                                                                                             δ
                                                                                                                                                                                                                      ; ORGANISM: Homo Sapien
US-10-123-904-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
US-10-123-904-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÕ
                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                             Prior Application removed • NUMBER OF SEQ ID NOS: 550 SEQ ID NO 362 LENGTH: 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 362, Application US/10123904 Publication No. US20030022328A1
                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 100.0%; Matches 243; Conservative
                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/123,904
CURRENT FILING DATE: 2002-04-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Baker, Kevin P.
                                                                                                                                                                                                                                                  LENGTH: 24
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION
                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 APLPEDRVLVNEQGHYDAVTGKETCQVPGVYYFAVHATVYRASLQEDLVKNGESIASEFQ 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                              61
                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                         Similarity
              APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                           MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                       APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           {\tt APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD}
Gao, Wei-Qiang
Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                             Zhang,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                         Wood,William
                                                                                                                                                                                                                                                                                                                                                                                                                       Watanabe,Colin K
                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Beresini, Maureen
                                                                                                                                                            100.0%; ilarity 100.0%; iconservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   243
                                                                                                                                                                                                                                                                                                                                                                                             Zemin
                                                                                                                                                                                                                                                                                                        See File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                            Score 1325; DB 9;
Pred. No. 2.3e-89;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 2.: , Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.3e-89;
hes 0;
                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                              POLYPEPTIDES
                                                                                                                                                                                                                                                                                                           Palm
                                                                                                                                                                                        Length
                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                        243;
                                                                                                                                                                                                                                                                                                                                                                              AND
                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                              NUCLEIC
                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                 180
                                                                                                                                60
                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                          멍
                                                                                 Š
                                                                                                                 及
                                                                                                                                          δÃ
                                                                                                                                                                         В
                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo Sapien US-10-140-470-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
US-10-140-470-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
 RESULT 11
US-09-796-753-68
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 362
LENGTH: 243
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 362, Application US/10140470 Publication No. US20030022331A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C160
CURRENT APPLICATION NUMBER: US/10/140,470
CURRENT FILING DATE: 2002-05-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prior Application removed - NUMBER OF SEQ ID NOS: 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT
                                                                                                                                                                                                                                                                                                                                                 Local Similarity
les 243; Conserv
                                                          241
                                                                                    241
                                                                                                                  181
                                                                                                                                              181
                                                                                                                                                                                                      1,21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                          \vdash
                                                                                                                                                                                                                                                                                                         1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                          VFA
                                                                                      VFA
                                                                                                                                FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP 240
                                                                                                                                                                                          APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ 180
                                                                                                                                                                                                                                                                                            MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VFA
                                                                                                                                                                           APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                  APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLYYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Baker, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zhang, Zemin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Stewart, Timothy A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                              100.0%;
ilarity 100.0%;
Conservative (
                                                                                    243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          See Palm or File Wrapper
                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                Score 1325; DB 9;
Pred. No. 2.3e-89;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                              243;
                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                 Gaps
```

2

180

240

120

60

```
Š
                                                                                         ; NUMBER OF SEQ ID NOS: 16
; SEQ ID NO 68
; LENGTH: 243
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-796-753-68
                                                   Query Match
Best Local Similarity
                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION: APPLICANT: McCart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 68, Application US/09796753
Publication No. US20030027998A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1998-1 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/796,753 CURRENT FILING DATE: 2001-03-01
                                                                                                                                                                     PRIOR APPLICATION NUMBER: 09/0
PRIOR FILING DATE: 2000-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 09/2
FILING DATE: 1998-10-00
APPLICATION NUMBER: 09/2
FILING DATE: 1998-10-00
                                                                                                                                                                                             APPLICATION NUMBER: 09/6
FTI.ING DATE: 2000-09-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/
FILING DATE: 1999-06-18
                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/
FILING DATE: 1999-12-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 1999-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: 1998-1
                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                       243;
1 MRPILVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     McCarthy, Sean A.

WENTION: SECRETED PROTEINS AND USES
                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1998-12-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1999-03-01
                                                                                                                                                                                                                                                                                                                              2000-06-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1999-12-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1999-05-14
                                                                                                                                                                                                                          2000-06-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999-06-29
                                                                                                                                                                                                                                                                            2000-07-3
                                                                                                                                                                                                                                                                                                    2000-06-
                                                                                                                                                                                                                                                                                                                                                                                  2000-03-01
                                                                                                                                                                                                                                                                                                                                                                                                         2000-02-25
                                                                                                                                                                                                                                                                                                                                                                                                                                 1999-12-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999-06-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1998-10-30
                                                                                                                                                                                                                                                 2000-06-
                                                                                                                                                                                                                                                                                                                                                        2000-05-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999-02-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .999-09-20
                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001-03-01
                                                                                                                                                                                                                                                                                                                                                                                             09/516,745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09/183,175
                                                                                                                                                                                                                                                                                                                                                                                                                      09/514,010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09/223,546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09/224,246
                                                                                                                                                                                   09/677,751
                                                                                                                                                                                                            09/665,666
                                                                                                                                                                                                                                      09/606,317
                                                                                                                                                                                                                                                                09/606,565
                                                                                                                                                                                                                                                                                        09/630,334
                                                                                                                                                                                                                                                                                                                  09/599,596
                                                                                                                                                                                                                                                                                                                                            09/597,993
                                                                                                                                                                                                                                                                                                                                                                    09/572,002
                                                                                                                                                                                                                                                                                                                                                                                                                                                09/474,072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09/474,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09/471,179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09/399,723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09/365,164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09/345,464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09/336,536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09/312,359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60/122,458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09/259,388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09/223,094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09/409,634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09/342,687
                                       0,
                                 Score 1325; ub ...
                                                               Length
                                       Indels
                                                                 243;
                                     0;
                                     Gaps
             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
US-10-175-746-362
; Sequence 362, App
; Publication No. (
                                                                           δÃ
                                                                                                     밁
                                                                                                                           ρŞ
                                                밁
                                                                                                                                                       뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
              181 FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
  181
                                                   121
                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                       61
                                                                                                                              61 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                      h 100.0%; Score 1325; DB 9;
Similarity 100:0%; Pred. No. 2.3e-89;
43; Conservative 0; Mismatches 0;
                                                FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                     APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VFA 243
```

Length 243; Indels

0;

Gaps

0;

60

60

180 180

240

120

```
CURRENT APPLICATION NUMBER: US/10/175,746
CURRENT FILING DATE: 2002-06-19
Prior Application removed - See File Wrapper
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 362
LENGTH: 243
TYPE: PRT
ORGANISM: Homo Sapien
US-10-175-746-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                    TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                           Watanabe,Colin K
Wood,William
                                                                                                                                                                                                                                                                                   Tumas,Daniel
                                                                                                                                                                                                                                                                                                 Stewart, Timothy A
                                                                                                                                                                                                                                                                                                                    Smith, Victoria
                                                                                                                                                                                                                                                                                                                                     Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                        Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                         Goddard, Audrey
Godowski, Paul J.
                                                                                                                                                                                                                                                                                                                                                                                                              Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                               Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10175746
b. US20030027270A1
                                                                                                                                                                                                                              Zemin
                                                                                                                File Wrapper
                                                                                                                  or
C
                                                                                                                  Palm
                                                                                                                                                                                                          AND NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
```

QY

241

VFA

```
Prior Application rem
NUMBER OF SEQ ID NOS: 55
SEQ ID NO 362
LENGTH: 243
TYPE: PRT
ORGANISM: HOMO Sapien
US-10-176-918-362
                                     RESULT 14
US-10-176-921-362
; Sequence 362, Application US/10176921
; Publication No. US20030027276A1
                                                                                                                                                           Š
                                                                                                                                                                                               밁
                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                       QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-10-176-918-362
GENERAL INFORMATION:
APPLICANT: Baker, Ke
APPLICANT: Beresin
                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local
Matches 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 362, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/10/176,918 CURRENT FILING DATE: 2002-06-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                 241
                                                                                                                                                                                               181
                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                           al Similarity
243; Conserv
                                                                                                                                                                 VFA
                                                                                                                                                                                                                                                                                                                                                                                               MRPLLVLLLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
Baker, Kevin P.
Beresini, Maureen
                                                                                                                                                                                                                                                                        APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                    APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                                                                                                                                                                                                                                                                                                                              MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                 FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                        APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Baker, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VFA 243
                                                                                                                                       VFA
                                                                                                                                                                                               FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Watanabe,Colin K
Wood,William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sherwood, Steven Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Godowski, Paul J. Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gerritsen, Mary E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Desnoyers,Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/10176918 o. US20030027275A1
                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                       243
                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002-06-20
removed - S
                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 1325; DB 9; 100.0%; Pred. No. 2.3e-89; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            See File Wrapper or Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                          60
```

```
; Prior Application removed - Su
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 362
; LENGTH: 243
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-176-921-362
                                                                                                                                                                                                                                              RESULT 15
US-10-137-865-362
; Sequence 362, App
; Publication No. U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 243
                                                                                                                                                                                                               GENERAL INFO
                                                                                APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: 93330R1C288
CURRENT APPLICATION NUMBER: US/10/176,921
CURRENT FILING DATE: 2002-06-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                  APPLICANT:
                                                                  APPLICANT:
                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                  APPLICANT:
                                                                                                                                 APPLICANT:
                                                                                                                                                  APPLICANT:
                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
hes 243; Conserv
                                                                                                                                                                                                                                 INFORMATION:
                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                 FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKIDSTFSGFLVYSDWHSSP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                               Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                               VFA 243
                                                                                                                                                                                                                                                                                                                                                                              VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESTASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                 Baker, Kevin P.
                                Sherwood, Steven Smith, Victoria
                                                                                                                               Gao, Wei-Qiang
                                                                                                                                             Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Smith, Victoria
Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Tumas, Daniel
               Stewart, Timothy A
                                                                                                                                                                               DeForge, Laura
                                                                                                                                                                                                  Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumas, Daniel
Watanabe, Colin K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gerritsen, Mary E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Filvaroff, Ellen
                                                                                                                                                                                                                                                Application US/10137865
b. US20030032155A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 1325; DB 9;
100.0%; Pred. No. 2.3e-89;
Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       See File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
```

```
APPLICANT: Wood, William
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C154
CURRENT APPLICATION NUMBER: US/10/137,865
CURRENT FILING DATE: 2002-05-03
Prior Application removed - See Palm or File Wrapper
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 362
LENGTH: 243
TYPE: PRT
ORGANISM: Homo Sapien
US-10-137-865-362
 밁
                        δÃ
                                                         В
                                                                                   Ş
                                                                                                                  В
                                                                                                                                          Qy
                                                                                                                                                                           망
                                                                                                                                                                                                     ρ
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 1325; DB 9; Length 243; Best Local Similarity 100.0%; Pred. No. 2.3e-89; Matches 243; Conservative 0; Mismatches 0; Indels 0
                                                      241 VFA 243
                241 VFA 243
                                                                                                                                                                      1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                  MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG 60
                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                              60
```

Search completed: June 13, 2003, 16:11:09 Job time: 50 secs

THIS PAGE BLANK (USPTO)

```
-MODEL-frame+_p2n.model -DEV=xlh.
-Q-\cgn2_1/USPTO_spool/US09944944/runat_13062003_150046_24241/app_query.fasta_1.391
-DB=\text{GenEmbl} -QF\text{MT}=\text{fasta} -SUFFIX_FIG -MINMATCH=0.1 -LOOPCL=0 -LOOPEXY=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=humah40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE-LOCAL
-OUTFMT=pto -NORM-ext -HEARSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER-US09944944_GCGN_1_1_2495_Grunat_13062003_15046_24241 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LOGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ОM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     June 21, 2003, 16:09:26 ; Search time 2664 Seconds (without alignments) 2654.648 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-944-944-42
1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2054640 seqs, 14551402878 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MRPLLVLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                         *: rd_ab
em_or: *
em_ov: *
em_pat: *
em_ph: *
em_pl: *
em_ro: *
em_sts: *
                                                                                                                                                             em_in:*
em_mu:*
em_om:*
                                                                                                                                                                                                                                                                                                         gb_sts:*
gb_sy:*
gb_un:*
gb_vi:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         *: vo_d
                                                                                                                                                                                                                                                                                em_ba: *
                                                                                                                                                                                                                                                                                                                                                                                                           gb_ro:*
                                                                                                                                                                                                                                                               em_fun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       o_om:•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4109280
```

```
em_htgo_hum:*
em_htgo_mus:*
em_htgo_other:*
                                    em_htg_mus:*
em_htg_pln:*
em_htg_rod:*
em_htg_mam:*
em_htg_vrt:*
em_sy:*
                                                                                                                          em_htg_hum:*
em_htg_inv:*
                                                                                                              em_htg_other:*
```

Pred. No. score gre and is No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, serived by analysis of the total score distribution.

SUMMARIES

			o 0	Result No.
424 424 424 424 424 424 424 424 424 424	ι ωωωωωω		1 1325 2 1325 3 1325 3 1325 5 1258 6 1254 7 1258 7 1258	So
	**************************************	4 7 9 . 0 9 . 3 . 3 . 3 . 3 . 3 . 3 . 3 . 3 . 3 .		Query Match
1886 11134 11152 11152 11152 11152 11152 11882 1384 17885 1973 1973 3215 10058 107553 205594 3226	1730538 150653 150653 947 1276 1276 1276 1276 1276 1313 4517 4517 4517 4517 4517 4517 4517	2195/4 1068 173657 249283 729 182429 182429 150653	1337 1347 1377 1370 1370 4220 4220 1234 1271 191362	Length
			9 10 10 10	DB
ABU6/7/0 AF269230 AX195207 AX358517 AX358517 MMU49915 AX054815 AF404407 AF410A1CCL HSCOLLX HSCOLLX HSCOLLX HSCOLLX HSJ136014 AL355373 AX333243	AC107174 AC107174 BC028770 AR034252 AX195209 AX358519 AM0377222 AY033885 AR034253 AR03427	HSM800923 AC112557 AC112577 AR138195 AR0101557 AR0101707	AF329841 AR138193 AX464228 BC029485 AF469650 BC025174 BC023068 AP003396	ID
ABU6/// Uncornync AF269230 Bos tauru AX195207 Sequence AX358517 Sequence U49915 Mus musculu AX054815 Sequence AF404407 Macaca mu AL1359736 Human DNA X65120 H.sapiens C X72580 Homo sapien X98568 H.sapiens t AL121663 Human DNA AL355373 Homo sapi AX333243 Sequence	C 51.75 0	Homo Homo Rattu Mus n Seque Homo Rattu		

ALIGNMENTS

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
                           δÃ
                                                            В
                                                                                Ş
                                                                                                                  용 성 용
                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                    US-09-944-944-42 (1-243) x AF329841 (1-1337)
                                                                                                                                                                                                                                                                                                                                                                                               Score:
                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
      438
                                                                                                                     318 CATGCCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGACGGCGCGCCCGGG
                                                                                                                                                                                                                                         258
                                81
                                                                                         61
                                                                                                                                                     41
                                                                                                                                                                                               21 AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 1337)
Sheppard, P.O. and Humes, J.M.
Homo sapiens complement-clq tumor necrosis
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1337 bp mRNA linear PRI 12-MAR-200 (CTRP5) mRNA, complement-c1q tumor necrosis factor-related protein (AF329841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (bases 1 to 1337)
Sheppard, P.O. and Humes, J.M.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (20-DEC-2000) Bioinformatics, ZymoGenetics, Eastlake Ave. East, Seattle, WA 98102, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AF329841.1 GI:13274527
GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                          AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                      H1sG1ySerG1nG1yLeuProG1yArgAspG1yArgAspG1yArgAspG1yAlaProG1y
                                                            GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                 GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
/map="11q23.3"
1. .1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /protein_id="aak17965.1"
/db_xref="GI:13274528"
/db_xref="GI:13274528"
/db_xref="GI:13274528"
/translation="wkethVLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQ
GLPGRDGRDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPP
RSAFSAKRSESRVPPPSDAPLPFDRVLVNEQCHYDAVTGKFTQQVPGVYYFAVHATVY
RASLOFDLYKNGESIASFOQFFGGWYKPASLSGGAMVRLEPEDQVWVQVGVGDVIGIY
ASIKTDSTFSGFLYYSDWHSSPYFA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="complement-clq tumor necrosis factor-related
protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="CTRP5"
/note="ZSIG39"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'gene="CTRP5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                             2.83e-48
1325.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    417 c
                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                               Gaps:
                                                                                                                                                                                                                                                                                                                                               Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Hómo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    H
                                                                                                                                                                                                                                                                                                                               1337
243
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 factor-related protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRI 12-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Inc.,
                                                            437
                                                                                        80
                                                                                                                     377
                                                                                                                                                  60
                                                                                                                                                                                317
                                                                                                                                                                                                                                          257
                                                                                                                                                                                                                                                                      20
```

								- 												
~	n 0	п о	-		0.11	ובי ובי			_	_			_		.		_	_	_	_
Qy	Qy Db 2	Qу Db 1	US-09-944-9	Alignment Sc Pred. No.: Score: Percent Simi Best Local S Query Match: DB:	BASE COUNT ORIGIN	REFERENCE AUTHORS TITLE JOURNAL FEATURES SOURCE	SOURCE	RESULT 2 AR138193 LOCUS DEFINITION ACCESSION VERSION KEYWORDS	٠	Qy 2	Db 8	. J	Ωу 2	Qy 1 Db 7	Qy 1 Db 6	Qy 1 Db 6	Db 5	0у 1	Db 4	Ωу 1
41 His	21 Asp 258 GAC	1 Met .98 ATG	44-42	Scores: .milarity: .Similarit; ;h:	N	1 (1 Shepp Adipo Pater	Unknown. Unknown. Unclassi	AR138193 Sequence AR138193 AR138193		241 Val	58 A	98	201 Pro	181 Phe 38 TTT	61 78	41 18	g	_ _ _	98 0	101 Pro
Glyser	AsnLys AACAAG	ArgPro AGGCCA	(1-243	y: rity:	35 a	bases 1 bard,P. bcyte-s it: US Lc	wn. wn. ssifie	1193 ence 1 1193 1193.1	GTCTTTGCT	ValPheAla	ATCAAGAC	GAGGAC	GluAsp	PheGLy	Alaser 	Lysphe	CCCTTG	laProLeup	CCGCG	ProArc
GlnGly	IlePro	LeùLeu CTCCTC	×	2.85e-4E 1325.00 100.00% 100.00% 100.00%	rganis 421	to 13 O. and pecifi 619793 cation 1347	ŗ.	from p GI:14	92	243	GACAGO	CAAGTO)GlnVa]	GlyTr GGGTGG	LeuGlr	Thrcys	CCCTTO		TCCGCC	SerAla
LeuPro	SerLeu !AGCCTC	Valle STCCTO	AR138193	00 8	∕organism="unknown 421 c 465 g	P.O. and Humes, J.M. specific protein h s 6197930-A 1 06-MA Location/Qualifiers 11347		patent 1479702			PACCIT	Threh	LTrpVa.	ProLys	PheAs	GCAGGTO	CGACCG	-Aspar	CTTCAG	aPheSe
SGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly 	PASDLYSIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 	MetArgProLeuLeuValLeuLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp 	1-13	O I M C M L	(nown"	1 (bases 1 to 1347) Sheppard, P.O. and Humes, J.M. Adipocyte-specific protein homo Patent: US 6197930-A 1 06-MAR-2 Location/Qualifiers 11347		1347 US 619				CAGGTO	ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer	PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu 	ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln 	GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 	CGTGCTG	aProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr	CTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGA	cAlaLys
[AspG1]	GlyHis GGGCAC	LeuGly	847)	Length: Matches: Conservativ Mismatches: Indels: Gaps:	226	omologs ?-2001;		ър 97930.		•	ATTICIO	GETET	LG1yVa]	SerLe	LLYSASI SAAGAA!	ValTy 	GTGAA	Walası	CGCTC	ArgSe
'ArgAsp	ProGly	LeuAla CTGGCG		tive: nes:	rt			DNA			GTGTAC	GGTGAC	LG1yAsı	SerGly	nGlyGlu rGGCGA/	CTYrPhe CTACTTC	CGAGCAC	oGluGlr	CGAGAGG	rGluSeı
GlyArc	LeuPro	AlaGly GCCGG		1347 243 0 0 0				line			CICCOA	TACAT	Tyril	GlyAla GGGGC	SerIl	PAlava GCCGT	3GGACA	GlyHi:	CCGGGT	cArgVa
JASPG1	oglyTh \GGCAC	/SerPro						ar			CTGGCA	FGCAT	eGlyI1	AMETVA CATGGT	eAlaSe	LH1SAL	TTACGA	STYrAS:	CCTCC	lProPr
yAlapr	rProG1	oProLe CCCACT		,				PAT 16			CAGCTC	CTATGC	eTyrAl	lArgLe GAGGCT	rPhePh TTTCTT	aThrVa CACCGT	CGCCGT	pAlaVa	GCCGTC	oProSe
								-JUN-2			3=5						CACC 6		TGAC 5	φ-
60	40 317	20 257						2001)17	857	220	200 _.	180 737	160 677	517	140	557	120

```
Alignment
Pred. No.:
Score:
                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                 RESULT 3
AX464228
LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                  δō
                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                        QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                              DP
QA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B 04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
 Percent Similarity:
                                                                              FEATURES
Source
                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                             AUTHORS
                                                     COUNT
                                                                                                                                                                                                                                                                                       816
                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                        858
                                                                                                                                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                          798
                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                            738
                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                               678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          438
                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                      Baker, K.P., Beresini, M., Deforge, L., Desnoyers, L., Filvaroff, E., Gao, W. C., Gerritsen, M.E., Goddard, A., Godowski, P.J., Gurney, A.L., Sherwood, S., Smith, V., Stewart, T.A., Tumas, D., Watanabe, C.K., Wood, W.L. and Zhang, Z.
Secreted and transmembrane polypeptides and nucleic acids encodin
                                                                                                                                                                       Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                        Sequence 361 from Paten
AX464228
AX464228.1 GI:21899130
                                                                                                Genentech
                                                                                                        Patent:
                                                                                                                                                                                                                                                  AX464228
                                                                                                                                                                                                                                                                                                ValPheAla 243
                                                                                                                                                                                                                                                                                                                      ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCTTTGCT 926
                                                                                                                                                                                                                                                                                                                                                                  ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                     PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                           GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                     251
                                                                                                      WO 0140466-A 361
                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
422 c 472 g 23
                                                                                       Location/Qualifiers
                                                                                                Inc.
2.9e-48
1325.00
100.00%
                                                                                                (SD)
                                                                                                                                                                                                                                          Patent
                                                                                                                                                                                                                                          1377 bp
: WO0140466
                                                                                                        07-JUN-2001;
Length:
Matches:
Conservative:
                                                    rt
                                                                                                                                                                                                                                                  DNA
1377
243
0
                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                  PAT
                                                                                                                                                                                                                                                  16-JUL-2002
                                                                                                                         encoding
                                                                                                                                                                                                                                                                                                                        917
                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                              737
                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80
                                                                                                                                                                                                                                                                                                                                                        857
                                                                                                                                                                                                                                                                                                                                                                                           797
                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               377
                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                      RESULT 4
BC029485
LOCUS
        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity: Query Match:
DB:
                                                                                                                                                       Ş
                                                                                                                                                                            밁
                                                                                                                                                                                        δõ
                                                                                                                                                                                                         b
                                                                                                                                                                                                                           νQ
                                                                                                                                                                                                                                                 뭐
                                                                                                                                                                                                                                                              δĀ
                                                                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                    ₽
64
                                                                                                                                                                                                                                                                                                                                                       ᅡ
                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                          밁
                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-944-944-42
TITLE
                                                                                                                                          947
                                                                                                                                                                             887
                                                                                                                                                                                                               827
                                                                                                                                                                                                                                                                                                                       647
                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                        587
                                                                                                                                                                                                                                                                                                                                                                                           527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    347
                                                                                                                                                         241
                                                                                                                                                                                              221
                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                  767
                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                    707
                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                                                                                                                              467
                                                                                                                                                                                                                                                                                                                                                                                                                                                               407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         227
                                                                    Homo sapiens, C1q of clone MGC:32938 IM BC029485 BC029485.1 GI:208
                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41
        Strausberg, R.
              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae, 1 (bases 1 to 1370)
                                           Homo
                                                             S
                                                                                                        BC029485
                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                     GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCTTTGCT
                                                                                                                                                         ValPheAla 243
                                                                                                                                                                                     IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpH1sSerSerPro
                                                                                                                                                                                                              PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                    AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                           CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                    ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                        GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.00%
                                                                                                                                          955
                                                                     GI:20810468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AX464228
                                                                                     1370 bp mRNA lq and tumor necrosis factor IMAGE:5278184, mRNA, complet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches:
Indels:
Gaps:
                                                                                     mRNA linear
s factor related
, complete cds.
                          Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              000
                                  Euteleostomi;
                                                                                              protein
                                                                                                        PRI 16-MAY-2002
                                                                                                                                                                                                            886
                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                                                                                                                                                                                                100
                                                                                                                                                                                                                                                                                                                                                                                                                                                               466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                  826
                                                                                                                                                                                                                                                                                    766
                                                                                                                                                                                                                                                                                                                                                        646
                                                                                                                                                                                                                                                                                                                                                                        140
                                                                                                                                                                                                                                                                                                                                                                                          586
                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         286
                                                                                                                                                                             946
                                                                                                                                                                                             240
                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                    200
                                                                                                                                                                                                                                                                                                                       706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
```

```
Best Local Si
Query Match:
DB:
 δã
                                    밁
                                                             δ
                                                                                          밁
                                                                                                                               Qy
                                                                                                                                                                     Дb
                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                      뫄
                                                                                                                                                                                                                                                                ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                        US-09-944-944-42 (1-243) x BC029485 (1-1370)
                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                      354
                                                                                                                                                                         294
     81
                                                                     61
                                                                                                                                      41
                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clone distribution: MGC clone distribution information can be for through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 48 Row: h Column: 14
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA g1: 141497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONA Library Preparation: Michael J. Brownstein (NHGRI) & Toshiyuki and Piero Carninci (RIKEN) DNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Sequencing Group at the Stanford Human Center, Stanford University School of Medicine, Stanford, Center: http://www-shgc.stanford.edu Contact: (Dickson, Mark) mcd@paxil.stanford.edu Contact: (Dickson, Mark) mcd@paxil.stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (01-MAY-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH-MGC Project URL:
Contact: MGC help des
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: cgapbs-r@mail.nih.gov
                                                                                                     GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                          AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
 GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                      AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                        HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ASIKTDSTFSGFLVYSDWHSSPVFA"
422 c 475 g 234 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLPGRDGRDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product="C1q and tumor necrosis factor related protein 5"
/protein_id="AAH29485.1"
/db_xref="G1:20810469"
/translation="MRPLIVILLIGIAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="MGC:32938 IMAGE:5278184"
/tlssue_type="Brain, hypothalamus"
/clone_lib="NHH_MGC_96"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /db_xref="LocusID:114902" \
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RASLQFDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note="Vector: pBluescript"
                                                                                                                                                                                                                                                                                                                                          4.25e-48
1321.00
100.00%
99.59%
99.70%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      http://mgc.nci.nih.gov
                                                                                                                                                                                                                                                                                                                                                         Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
                                                                                                                                                                                                                                                                                                                                           0001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A., and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genome
CA 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14149711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shiraki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Myers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94305
                                                                                                   413
                                                                                                                                      60
                                                                                                                                                                                                     40
                                    473
                                                                                                                                                                       35
                                                                                                                                                                                                                                        293
                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                    JOURNAL
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
AF469650
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                  gene
                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                        Submitted (17-JAN-2002) The Jackson Bar Harbor, ME 04609, USA
                                                                                                                                                                                                                                                                    2 (bases 1 to 4220)
Kameya,S., Naggert,J.K. and Nishina,P.M.
                                                                                                                                                                                                                                                                                                                                        Mfrp, a gene encoding a frizzled mouse retinal degeneration 6
                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; 1 (bases 1 to 4220)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ar409650 ARNA linear ROD 31-JUL-2002 Mus musculus membrane-type frizzled-related protein (Mfrp) and complement-clq tumor necrosis factor-related protein (Clqtnf5) mRNAs. Commlate Cas
                                                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                        Hum. Mol. Genet.
12140190
                                                                                                                                                                                                                                                                                                                                                                           and Nishina, P.M.
                                                                                                                                                                                                                                                                                                                                                                                         Kameya, S., Hawes, N.L., Chang, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNAs, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AF469650.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AF469650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCCGCGAGGAGAGGCGGGACCCGCGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                  /gene="Mfrp"
52. .1806
                                                                                     52. .1806
                                                                                                                                  /organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
                                  /gene="Mfrp"
                                                                                                 /map="26 cM"
                                                                                                                 'chromosome="9"
                                                                                                                                                                                     Location/Qualifiers
1. .4220
codon_start=1
                 'note-"MFRP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  962
                                                                                                                                                                                                                                                                                                                        11 (16), 1879-1886
                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                         related
                                                                                                                                                                                                                                                                                                                                                                                          Heckenlively, J.R.,
                                                                                                                                                                                                                                      Laboratory,
                                                                                                                                                                                                                                                                                                                        (2002)
                                                                                                                                                                                                                                                                                                                                                        protein,
                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                         is
                                                                                                                                                                                                                                        Main
                                                                                                                                                                                                                                                                                                                                                                                         Naggert, J.K.
                                                                                                                                                                                                                                                                                                                                                         mutated
                                                                                                                                                                                                                                        Street,
```

953 240 893 200

773

833

180

160

713

140

593

533

653

in the

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-944-944-42 (1-243) x AF469650 (1-4220)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                 3397
                                                                         3457
                                                                                                                                                                                                                       3337
                                                                                                                                                                                                                                                                                             3277
                                                                                                                                                                                                                                                                                                                                                                     3217
                                                                                                                                                                                                                                                                                                                                                                                                                                           3157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3097
                                                                                                             121
                                                                                                                                                                                 101
                                   141
                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                    GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                  H1sG1ySerG1nG1yLeuProG1yArgAspG1yArgAspG1yArgAspG1yAlaProG1y
 GGCAAGTTCACCTGCCAAGTGCCTGGCGTCTACTACTTTGCTGTGCACGCCACTGTCTAC
                                                                       ACACCCCTACCTTTCGACCGTGTGCTGCTAAATGAGCAGGGCCATTACGACCCCACTACT
                                                                                                                                             CCCCCACGATCAGCCTTCAGTGCCAAGCGATCCGAGAGCCGGGTACCTCCGCCAGCCGAC
                                                                                                                                                                ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp 120
                                                                                                                                                                                                                                                       GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                           GCTCCGGGAGAGAAAGGCGAGGGCGGGAGACCGGGACTACCTGGCCCACGTGGGGAGCCC
                                                                                                                                                                                                                                                                                                              AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                 CATGGCAGCCAAGGCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                        GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTTCCAGGCACCACCAGGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGAGGCCACTTCTTGCCCTTCTGGGTCTGGTGTCAGGCTCTCCTCCTCTGGAC
                                                                                        AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /protein_id="AAM89217.1"
/db_xref="01:22023768"
/translation="MRPLIALLLIGIVSGSPPLDDNKIPSLCPGQPGLPGTPGHHGSQ/translation="MRPLIALLLIGIVSGSPPLDDNKIPSLCPGQPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGGRPGLPGPRGEAGERGEAGPMGAIGPAGECSVPPRSAFSAKRSESKVPPPADIPLEPDRVLLNEQGHYDPTGKFTCQVPGVYYFAVHATVYRASAFSAKRSESKVPPPADIPLEPDRVLLNEQGHYDPTGKFTCQVPGVYYFAVHATVYRASAFGAMVRLEPEDQVWVQVGVGDYIGIY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SRIQARPWHAQRIRGIQPDCHFSWFCIILLSGILLLLIGILVAVIIAQIQATSIPRTTK

NPLITRGITPMOVIPSTPNTTTTTTTTTPARTGQEBAAMSPTHQTTGGGILPGFSGF
FSSRVPDLYEPISHCYWHIOVAAGQTIQLKIQALSIESMLTGLFDREDFI
LRVCGKTPPATLNTTSHLRVSFVSDNDVEGSGFQAWYQAVAPGHWSCAHNEFHCDLL
LCLKRDSVCDGITECADGSDEANCSAKTIGGGGNLTGLYGVFSTPNYPOHYPHQQLCT
WYIEVPVGYGITALEFHHRFSLEAQAGCKEDYVWYYEASNIGTESFIGRFOGAEPPLNVY
SSMHQLAVIFKTDLGISSGGFLATYQAINTTESGCPWAEFCQSGYRDLQWMCDLWKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ASIKTDSTFSGFLVYSDWHSSPVFA"
1282 c 1147 g 918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CANDSNDNCSSHLSPQPDLTCEPVQVEMCLGLSYNTTAFPNIWVGLATQTEVTDILRG
YKSLTSLPCYQTFQRFLCGLLVPRCTSLGTILPPCRSVCQAAEQQCQSSLALLGTPWP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNCNRLPVAASLEACSQP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /product="membrane-type frizzled-related protein"
/protein_id="AAM89216.1"
/db_xref="GI:22023767"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="Clqtnf5"
/note="ClQTNF5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product="complement-clq tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               translation="MKDYDDVILRPEASELSKTEFCNPAFDPEAGPSCPPPALQRDVG/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4.5e-45
1258.00
96.30%
93.83%
94.94%.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lqtnf5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative: Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
0
0
0
0
0
0
0
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      factor-related
                                   160
 3576
                                                                                                                                             3456
                                                                                                                                                                                                                     3396
                                                                                                                                                                                                                                                                                                                              80
                                                                       3516
                                                                                                                                                                                                                                                                                          3336
                                                                                                                                                                                                                                                                                                                                                                 3276
                                                                                                                                                                                                                                                                                                                                                                                                                                        3216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3156
                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
BC025174
                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                  SGS
                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BC025174.1
                                                                                                                                                                                                                                   analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        house mouse
codon_start=1/
```

B 6 Дb Qy 밁 Ş В δÃ B 8

В 2 밁 Qy 밁

δÃ

```
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 61 Row: f Column: 26 This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus, clone MGC:36714 IMAGE:3978387, mRNA, BC025174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (05-MAR-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu,
Yoon, V.S., Kowis, C.R., Lawrence,
Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Baylor College of Medicine Human Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center code: BCM-HGSC
Web_site: http://www.hgsc.bcm.tmc.edu/cdna/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    irect Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGAGGACCAGGTGTGGGTGCAGGTGGGCGTGGGTGATTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATTTTGGGGGGGTGGCCCAAGCCAGCCTCGCTCTCAGGGGTGCGATGGTAAGGCTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 1234)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCAAGACAGACAGTACCTTCTGGATTTCTCGTCTATTCTGACTGGCACAGCTCCCCA
                                              /tissue_type="Mammary tumor. Metallothionien-TGF alpha
model. 10 month old virgin mouse. Taken by biopsy."
/clone_lib="NCI_CGAP_Mam1"
/lab_host="DH10B"
/note="Vector: 112. .843
                                                                                                                                                                                  /map="FVB/N"
                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                         /clone="MGC:36714 IMAGE:3978387"
                                                                                                                                                                                                        /organism="Mus musculus"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:19263583
                        PCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           X., Hulyk,
S., Martin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S.W., H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hale, S., Muzny,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROD 07-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z.X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
```

Pred

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity: Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-42 (1-243) x BC025174 (1-1234)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.:
                                                                                                                                                                  652
                                                                                                                                                                                                                    592
                                                                                                                                                                                                                                                                                                                  472
                                                               772
                                                                                       221
                                                                                                                 712
                                                                                                                                        201
                                                                                                                                                                                          181
                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                                                  532
                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                    412
                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                   352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      172
                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                 ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                              ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
               GTCTTCGCT
                                       ValPheAla 243
                                                                                                                                                                 TATTTTGGGGGGGTGGCCCAAGCCAGCCTCGCTCAGGGGGGGTGCGATGGTAAGGCTAGAA
                                                                                                                                                                                                                  GGGCCGCGTGGAGAGGCCAGGGCCCATGGGGGGCTATCGGGCCTGCGGGGGAGTGCTCGGTA
                                                               ATCAAGACAGACAGTACCTTCTCTGGATTTCTCGTCTATTCTGACTGGCACAGCTCCCCA
                                                                                                               CCTGAGGACCAGGTGGGGTGCAGGTGGGCGTGGTTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                   CCCCCACGATCAGCCTTCAGTGCCAAGCGATCCGAGAGCCGGGTACCTCCGCCAGCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCCGGGAGAGAGAGGGCGAGGGGGGGAGACCGGGGACTACCTGGGCCACGTGGGGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product="Unknown (protein for MGC:36714)".

protein_id="AAH25174.1"
/protein_id="AAH25174.1"
/db_xref=="Gi:19263584"
/translation="MRPLLALLLLGLVSGSPPLDDNKIPSLCPGQPGLPGTPGHHGSQ
/translation="MRPLLALLLLGLVSGSPPLDDNKIPSLCPGQPGLPGTPGHHGSQ
GLPGROGRDGROGAPGEKCEGGRPCLPGPRGEPGPRGEAGPMGATGPAGECSVPP
RSAFSAKRSESRVPPPADTPLPFDRVLLNEQGHFDPTTGKFTCQVPGVYYEAVHATVY
RASLOPDLVKNQOSIASFFQYFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIY
ASIKTDSTFSGFLYYSDWHSSPYFA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.6e-45
1254.00
96.30%
93.42%
94.64%
              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1234
227
7
9
9
0
                                                               831
                                                                                     240
                                                                                                                                       220
                                                                                                                                                               711
                                                                                                                                                                                                                  651
                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                               771
                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                   471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 7
BC023068
                                    Percent Similarity:
Best Local Similarity:
Query Match:
US-09-944-944-42
                                                                           Score:
                                                                                       Pred. No.:
                                                                                                  Alignment Scores:
                                                                                                                           ORIGIN
                                                                                                                                       BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BC023068
                                                                                                                                         258
(1-243) x BC023068
```

밁 õ 밁 QΥ

(1-1271)

24 64 64

δ

94 55

δ B

δ 밁 δ В δÃ 밁 δÃ Вþ δÃ В δÃ 밁 Š

```
Mus musculus
Mus musculus
Eukaryota; Metazoa; Chordata;
Eukaryota; Metazoa; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: Jeffrey Green M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Sequencing by: Baylor College of Medicine Human Genom
Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (04-FEB-2002) National Institutes of Hea
Gene Collection (MGC), Cancer Genomics Office, Nat
Institute, 31 Center Drive, Room 11A03, Bethesda,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clone distribution: MGC clone distribution information can be fo through the I.M.A.G.E. Consortium/ILML at: http://image.lini.gov Series: IRAK Plate: 54 Row: b Column: 4
This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu,
Yoon, V.S., Kowis, C.R., Lawrence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BC023068
BC023068.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus musculus, s
IMAGE:5355789,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Web site: http://www.hgsc.bcm.tmc.edu/cdna/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       house mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1
                                                                                                                                                                                                                                                                                                      /product="Similar to DKFZP586B0621 protein"
/product="Similar to DKFZP586B0621 protein"
/protein_id="AAH23068.1"
/db_xref="GI:18605994"
/db_xref="GI:18605994"
/translation="MRPLLALLLIGLVSGSPPLDDNKIPSLCPGQPGLPGTPGHHGSQ
CLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGEAGPMGAIGPAGECSVPP
RSAFSAKRSESRVPPPADTPLPFDRVLLNEQGHFDPTTGKFTCQVPGVYYFAVHATVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="MGC:38635 IMAGE:5355789"
/tissue_type="Mammary tumor. C3(1)-Tag model.
ductal carcinoma. 5 month old virgin mouse."
/clone_lib="NCI_CGAP_Mam6"
/lab_host="DH10B"
                                                                                                                                                                                                                                RASLAFDLVKNGQSIASFFQYFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIY
ASIKTDSTFSGFLVYSDWHSSPVFA"
375 c 378 g 260 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Mus musculus"
/db_xref="taxon:10090"
/map="FVB/N"
                                                                                                                                                                                                                                                                                                                                                                                                                                                           /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Vector: pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
       2.65e-45
1254.00
96.30%
93.42%
94.64%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to 1271)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:18605993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1271 bp mRNA linear ROD 07-AUG-
Similar to DKFZP586B0621 protein, clone MGC:38635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complete cds.
Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata;
Sciurognathi; Muridae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             s :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hulyk, S.W., Hale, S. Martin, R.G., Muzny,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Health, N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mammalian
l Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Infiltrating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ∵ <u>'</u> ≼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ι.
Σ
```

```
RESULT 8
AP003396/c
LOCUS
DEFINITION
        JOURNAL
REFERENCE
AUTHORS
                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                д Q
                                                                                                                                                                                        Д
                                                                                                                                                                                                        δŌ
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                       Db
                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                  д
2
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                              B, 5
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                            δŌ
                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                          δδ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                      REFERENCE
                               TITLE
                                              AUTHORS
                                                                             ORGANISM
Hattori,M., Ishii,K., Toyoda,A., Ta
Fujiyama,A., Yada,T., Totoki,Y., Wa
Homo sapiens genomic DNA
Published Only in Database (2002)
2 (bases I to 191362)
Hattori,M., Ishil,K., Toyoda,A., Ta
Fujiyama,A., Yada,T., Totoki,Y., Wa
                                                                                                                                                                 873
                                                                                                                                                                               241
                                                                                                                                                                                               813
                                                                                                                                                                                                              221
                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                           693
                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                         633
                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                       573
                                                                                                                                                                                                                                                                                                                                    141
                                                                                                                                                                                                                                                                                                                                                     513
                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                   453
                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             213
                                                                                                                                                                                                                             753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          153
                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21
                                                                                                  sequences.
AP003396
AP003396.1
                                                                                                                          Homo sapiens
                                                            Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                           Homo sapiens
                                                                                             HTG
                                                                                                                                  AP003396
                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                   GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                          ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                 GTCTTCGCT
                                                                                                                                                                              ValPheAla
                                                                                                                                                                                               ATCAAGACAGACAGTACCTTCTCTGGATTTCTCGTCTATTCTGACTGGCACAGCTCCCCA
                                                                                                                                                                                                      IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                             CCTGAGGACCAGGTGGGTGCAGGTGGGCGTGGGTGATTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                      GGCAAGTTCACCTGCCAAGTGCCTGGCGTCTACTACTTTGCTGCGCCACGCCACTGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                   CCCCCACGATCAGCCTTCAGTGCCAAGCGATCCGAGAGCCGGGTACCTCCGCCAGCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTTCCAGGCACACCAGGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGAGGCCACTTCTTGCCTTCTGCTTCTGGGTCTGGTCAGGCTCTCCTCCTCTGGAC
                                                                                                    GI:20302607
                                                                                                                                                                 881
                                                                                                                                                                               243
                                                                                    DNA,
                                                                                                                         genomic
                                                                                    clone:RP11-334E6.
                                                                                                                         DNA,
                                                                                                                                 191362 bp
                                                                                                                          chromosome
                                                           Craniata; Ve
Catarrhini;
                                 Taylor,T.D.,
Watanabe,H. a
Taylor, T.D., Watanabe, H.
                                                                                                                                  DNA
                                                                                                                         11q
                                                           Vertebrata; Euteleostomi;
i; Hominidae; Homo.
                                                                                                                         clone:RP11-334E6,
                                                                                                                                linear
  and
                                      and Sakaki, Y.
 Hong-Seog, P.,
and Sakaki, Y.
                                                                                                                                  PRI
                                                                                                                                 25-APR-2002
                                                                                                                         complete
                                                                                                                                                                                              872
                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                            240
                                                                                                                                                                                                                             812
                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                          752
                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                         692
                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                       632
                                                                                                                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                                                                                    572
                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                   512
                                                                                                                                                                                                                                                                                                                                                                                                                452
                                                                                                                                                                                                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                                                                                                                                               392
                                                                                                                                                                                                                                                                                                                                                                                                                                                              80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
덩
           Ş
                             밁
                                          2
                                                           밁
                                                                       Q
                                                                                          밁
                                                                                                        Ş
                                                                                                                        밁
                                                                                                                                    Ş
                                                                                                                                                       밁
                                                                                                                                                                     Q
                                                                                                                                                                                     밁
                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                                                                                   Pred.
                                                                                                                                                                                                                                                                                                                                                                          Alignment
                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                   No
::
6391
                             6451
                                                                                          6571
                                                                                                                         6631
                                                                                                                                                        6691
                                                                                                                                                                                      6750
                                                                                                                                                                                                                     6810
                                                                                                                                                                                                                                                   6870
                                                                                                                                                                                                                                                                                6930
                                                            6511
                74
                                                                            73
                                                                                                          73
                                                                                                                                        73
                                                                                                                                                                       73
                                                                                                                                                                                                     61
                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ohki, M.
                                                                                                                                                                                                                                                                                                                                                                                                 46535
                                                                                                                                                                                                                                                                                                                                                                                                 D
```

```
US-09-944-944-42 (1-243) x AP003396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and Chemical Research (RIKEN), Genomic Sciences Center (GSC); 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japa (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9170)
This work was done in collaboration with Arai v "Ohki. M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      zip: 104-0045
phone: 81-3-3542-2511 ex 4752,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cancer Genomic Division 5-1-1, Tsukiji, Chuo-ku,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission Submitted (12-MAR-2001) Masahira Hattori,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           yarai@ncc.go.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         National Cancer Center Research Institute
TACCCCGCAGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCCGCGAGGAGGAGGCGGGACCC 6332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyArdAspGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTAGAGTCGCCGCCCGCTGCGGGGCTGAGCCGCCGCTACTCTCACCCTGCCGCCCCGCT
                                                                                                                                   ACCCGTGCGGGAGGAGGCGCTGGCCGAAGCTCAGGCAGGGGCCGGGGAGGGGTACGGTGAC 6452
                                                                                                                                                                                                                                                                    CTCCCGCCAGGGGGCCCACTCCCCCGCGCTTTGCAGCCCTGAGCGGGGGAGGGGCCCAGG
                                                                                                                                                                                                                                                                                                                                      GGTGGCGATGTCCGAGCGCGCGGCCGCAGCTCCAGCTCCCGGTGTCCGGGACTCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                      GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGTAA-GAAGGCACCGCCGCGGCTATC
                                                                                                                                                                                                     CGGCGGGAGCCCCTTGGCCAGCCCCCCAGATCTGCCCTGCGGGAAGGGGTGGAAGGAGGT 6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /map="11q"
/clone="RP11-334E6"
/ 45977 c 48722 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .19136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.96e-43
1239.50
68.17%
68.17%
93.55%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1-191362)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tokyo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          50128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fax:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JAPAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81-3-3542-0688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
1
113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e-mail:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of Physical
                                                                   6392
                                                                                                                                                                                                                                                                   6572
                                                                                                                                                                                                                                                                                                                                      6632
                                                                                                                                                                                                                                                                                                                                                                                                      6692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6811
                                                                                                                                                                  73
                                                                                                                                                                                                                                    73
                                                                                                                                                                                                                                                                                                     73
                                                                                                                                                                                                                                                                                                                                                                                                                                       73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6871
                                                                                                    73
                                                                                                                                                                                                                                                                                                                                                                       73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
```

Qy 밁 γQ 밁 Ş

e-mail:

```
RESULT 9
AP002956/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                    JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89
                                                                                                                                                                      Submitted (24-NOV-2000) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (SSC); 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170)
Pol:81-45-503-9111, Fax:81-45-503-9170)
Overlapping Clones: pD71A4, PO38G8
Cytogenetic Position: 21q22.1, region:D21s226-AML
STS Markers (ePCR): st8G53747, SHGC-16045, D11s2450, SHGC-7143,
                                                                                                                                                                                                                                                                                                                                                Hattori,M., Toyoda,A., Taylor,T.D., Fuj:
Totoki,Y., Watanabe,H. and Sakaki,Y.
Homo sapiens 219.574 genomic DNA of 11q
Published Only in Database (2002)
2 (bases 1 to 219574)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
Eukaryota; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                Arai,Y., Kubo,T.,Ohki,M.
National Cancer Center Research
                                            non-AGCT bases: none
Additional author information
                                                                                                                           stSG31054, sts-X57110, WI-8978, D11S1941E, WI-14589, stSG60191,
                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AP002956
                                                                                Contamination:
                                                                                               TIGR-A005D38,
                                                                                                                                                               WI-16056
                                                                                                                                                                                                                                                                                                                    Hattori,M., Toyoda,A., Taylor,T.D.,
Totoki,Y., Watanabe,H. and Sakaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                Hattori,M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AP002956.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCT 5867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyPheLeuValTyrSerAspTrpHisSerSerProValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCTCGCTCTCGGGGGGGGCCATGGTGAGGCCTGAGGACCAAGTGTGGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaSerLeuSerGlyGlyAlaMetValArgLeuGluProGluAspGlnValTrpValGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValLysAsnGlyGluSerIleAlaSerPhePheGlnPhePheGlyGlyTrpProLysPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyValTyrTyrPheAlaValHisAlaThrValTyrArgAlaSerLeuGlnPheAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuValAsnGluGlnGlyHisTyrAspAlaValThrGlyLysPheThrCysGlnValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGAAGAATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTCGGGGGGGTGGCCCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTTGCCCTTCGACCGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysArgSerGluSerArgValProProProSerAspAlaProLeuProPheAspArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens DNA, clone:R1105h09
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Metazoa;
Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:22255355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genomic
                                                                                             Bdaa7g02, D11S869E,
                                                                                none
                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA, chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                             GDB:198117, stSG29284, stSG50535, A002048, st
                  Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                                                                                                                                                                                                                                                                                   Fujiyama,A.,
                                                                                                                                                                                                                                                                                                                                                                                                                Fujiyama,A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear PRI 15-AUG-2002 clone:R1105h09, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                                                                    Yada, T.,
                                                                                                                              stSG26946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108
õ
                               В
                                                         δÃ
                                                                                            밁
                                                                                                                        δÃ
                                                                                                                                                            밁
                                                                                                                                                                                       Š
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                  γQ
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-42 (1-243) x AP002956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                               209069
                                                                                                                                                            209129
                                                                                                                                                                                                                         209189
                                                                                                                                                                                                                                                                                      209249
                                                                                                                                                                                                                                                                                                                                                     209309
                                                                                                                                                                                                                                                                                                                                                                                                                209369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          209488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         209548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      209608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    209668
                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scores:
                                                                                                                             89
                                                                                                                                                                                                                                                                                                                     73
                                                                                                                                                                                          74
                                                                                                                                                                                                                                                                                                                                                                                  73
                                                                                                                                                                                                                                                                                                                                                                                                                                               73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                phone: +81-3-3542-2511 ex4752,
yarai@ncc.go.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5-1-1, Tsukiji, Chuo-ku, Tokyo, zip: 104-0045
                                                                                                                                                            TACCCCGCAGGACTGCCGGGACCTCGAGGGGGACCCCCGGGCCGAGGAGAGGCGGGACCC
                                                 LysArgSerGluSerArgValProProProSerAspAlaProLeuProPheAspArgVal
                                                                                             GCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCC
                                                                                                              AlaGlyProThrGlyProAlaGlyGluCysSerValProProArgSerAlaPheSerAla
                                                                                                                                                                                                                         CTTAGAGTCGCCGCCCCCCCTGCGGGCTGAGCCGCCGCTACTCTCACCCTGCCGCCCCGCT 209130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGTAA-GAAGGCACCGCCGCGGCTATC 209430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCGCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
 LeuValAsnGluGlnGlyHisTyrAspAlaValThrGlyLysPheThrCysGlnValPro
                                                                                                                                                                                                                                                                                    CGGCGGGAGCCCCCTTGGCCAGCCCCCCAGATCTGCCCTGCGGGAAGGGGTGGAGGAGGT 209250
                                                                                                                                                                                                                                                                                                                                                                                                               GGTGGCGATGTCCGAGCAGGCGCGGCGCCAGCTCCAGCTCCCGGTGTCCGGGACTCGGGT 209370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAGGCCACTCCTCGTCCTGCTGCTGCTGGGCCTGGCCGGCTCGCCCCCACTGGAC
                                AAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone="R1105h09"
50356 c 53844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /map="11q"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5.51e-43
1239.50
68.17%
68.17%
93.55%
                                                                                                                                                                             ProGlyProArgGlyAspProGlyProArgGlyGluAlaGlyPro 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1-219574)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  fax:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JAPAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    +81-3-3542-0688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            219574
242
0
1
113
```

128

209010

209070

73

73

73

73

73

60 209489

209549

209609

148

밁 Š 밁 δ. Б δ ₽ δ 日 54 B

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
HSM800923
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                 gene
                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                       source
  polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  208649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       208829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             208949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            229
                                                                                                                                                                                                                                                                                            Research Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de; sequenced by MediGenomix (Martinsried/Germany) within the cDNA sequencing consortium of the German Genome Project. This clone (DKFZp58680621) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059 Berlin-Charlottenburg, GERWANY; Email: clone@rzpd.de Further information about the clone and the sequencing project is available at http://www.mips.biochem.mpg.de/proj/CDNA/.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission Submitted (15-AUG-1999) MIPS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; 1 (bases 1 to 1068)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens mRNA; cDNA AL110261 AL110261.1 GI:5817222
                                                                                                                                                                                                                                                                                                                                                                                                                   Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ottenwaelder, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                  Martinsried, GERMANY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wiemann,S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSM800923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyPheLeuValTyrSerAspTrpHisSerSerProValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaSerLeuSerGlyGlyAlaMetValArgLeuGluProGluAspGlnValTrpValGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ValLysAsnGlyGluSerIleAlaSerPhePheGlnPhePheGlyGlyTrpProLysPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyValTyrTyrPheAlaValHisAlaThrValTyrArgAlaSerLeuGlnPheAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValG1yValG1yAspTyrIleG1yIleTyrAlaSerIleLysThrAspSerThrPheSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGAAGAATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTCGGGGGGTGGCCCAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens.
             /gene="DKFZp586B0621"
<1. .660
                                                                            /product="hypothetical protein"
/protein_id="CAB53702.1"
/db_xref="GI:5817223"
                                                                                                                                                                                          /tlssue_type="tterus"
/clone_lib="586 (synonym: hutel). Vector
DH10B; sites NotI + Sall/MluI"
/dev_stage="adult"
                                                                                                                   /codon_start=1
                                                                                                                              /note="similarity to
                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="DKFZp586B0621"
                                                                                                                                           /gene="DKFZp586B0621"
                                                                                                                                                                                                                                                                                       .1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Obermaier, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1068 bp mRNA linear PRI 18-FEB-2000 DKFZp586B0621 (from clone DKFZp586B0621).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                              complement subcomponent
                                                                                                                                                                                                                                                                                                                                                                                                                                            ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mewes, H.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                            Klopferspitz 18a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gassenhuber, J.
                                                                                                                                                                                                                     pSport1;
                                                                                                                                                                                                                                                                                                                                                                                                                                            D-82152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo.
                                                                                                                              Clq
                                                                                                                                                                                                                                                                                                                          available
                                                                                                                              chain
                                                                                                                                                                                                                       host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  208650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    208710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      208770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        208830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           208890
                                                                                                                             G
 REFERENCE
AUTHORS
                                                                                                                                                     RESULT 11
AC112557
LOCUS
                                                               SOURCE
ORGANISM
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polyA_site
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-42 (1-243) x HSM800923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similari
Query Match:
                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                        KEYWORDS
                                                                                                      VERSION
                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        No.:
                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                        109
                                                                                                                                                                                                                                225
                                                                                                                                                                                                                                                                                   205
                                                                                                                                                                                                                                                                                                                                      185
                                                                                                                                                                                                                                                                                                                                                                                         165
                                                                                                                                                                                                                                                                                                                                                                                                                                           145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25
                                                               Norway rat.
Rattus norvegicus
                                                                                                    AC112557
AC112557.2
1 (bases 1 to 173657)
Muzny, D.M., Adams, C.,
                                                                                        HTG; HTGS_PHASE1.
                                                                                                                             Rattus norved
72 unordered
                         Rattus.
                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                       AC112557
                                                                                                                                                                                                                                                                                                                                                             GluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerValProProArgSer 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspProGlyProArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGlyAlaProGlyGlu
                                                                                                                                                                                                                     SerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerProValPheAla 243
                                                                                                                                                                                                                                                          ValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSerIleLysThrAsp
                                                                                                                                                                                                                                                                                                                          TrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGluProGluAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCTTGCCGGGGCCGATGGCCGCCGACGGCCGCGCGCGCCCCGGGGCTCCCGGGAGAG
                                                                                                                                                                                                        AGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCT
                                                                                                                                                                                                                                                                                                           TGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCGACCGCGTGCTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThrGlyLysPheThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGGCGAGGGCGGGAGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           187
                                                                                                                                         norvegicus clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           മ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.21e-43
1207.00
100.00%
100.00%
91.09%
                                                                                                    GI:21735369
                                                                                                                             pieces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                     Chordata;
Rodentia;
Adio-Oduola, B.,
                                                                                                                                         173657 bp
e CH230-904,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (1-1068)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels:
                                     Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198
Ali-osman, F.R.,
                                                                                                                                         linear
SEQUENCING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1068
219
0
0
0
                                                                                                                                          H
                                     Euteleostomi;
Murinae;
                                                                                                                                          HTG 14-JUL-2002
PROGRESS ***,
 Allen, C.,
```

204 480

600

184

420 164 180

84 120 64

60 44

124

240

300

consists of 72 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence

as soon as it is available and the accession number will

```
Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S.,
Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C.,
Kratlovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L. C., Lewis, L.,
Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Loulseged, H.,
Lozado, R.J., Lu, X., Lucier, A., Lucier, R., Luna, R., Ma, J.,
Maheshwari, M., Mapua, P., Martin, R., Martindale, A., Martinez, E.,
Maheshwari, M., Mapua, P., Martin, R., Martindale, A., Martinez, E.,
Maheshwari, M., Mapua, P., Martin, R., Martindale, A., Martinez, E.,
Mansey, E., Mawhiney, E., McLedd, M.P., Meador, M., Morgan, M., Morris, S.,
Miner, G., Miner, Z., Mitchell, T., Mohabbat, K., Morgan, M., Morris, S.,
Moser, M., Neal, D., Newtson, J., Newtson, N., Nguyen, A., Nguyen, N.,
Nguyen, N., Nickerson, E., Nwokenkwo, S., Oguh, M., Okwuonu, G.,
Oragunye, N., Oviedo, R., Pace, A., Payton, B., Peery, J., Perez, L.,
Peters, L., Pickens, R., Primus, E., Pu, L. L., Quiles, M., Ren, Y.,
Rives, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G.,
Scherer, S., Scott, G., Shen, H., Shooshtari, N., Sisson, I.,
Sutton, A., Svatek, A., Tabor, P., Tamerisa, A., Tamerisa, K., Tang, H.,
Jugnani, K., Vasquez, L., Vera, V., Villalon, D., Vinson, R., Wang, O.,
Washington, S., Warten, D., Washington, S., Wartington, S.,
Sutton, A., Svatek, A., Tang, P., Villalon, D., Vinson, R., Wang, O.,
Washington, S., Warten, D., Washington, S., Washi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (14-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Jul 12, 2002 this sequence version replaced millocom.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R
Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A.,
Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H.,
Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J.,
Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (22-FEB-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA 3 (bases 1 to 173657)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wang,S., Ward-Moore,S., Warren,R., Washington,C., Watlington,S., Williamson,A., Wleczyk,R., Wooden,S., Worley,K., Wu,C., Wu,Y., Wu,Y.F., Zhou,J., Zorrilla,S., Nelson,D., Weinstock,G. and Gibbs,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Falls,T., Ferraguto,D., Flagg,N., Ford,J., Foster,P., Frantz,P., Gabisi,A., Gao,J., Garcia,A., Garre,T., Garza,N., Gill,R., Gorrell,J.H., Guevara,W., Gunaratne,P., Hale,S., Hamilton,K., Harris,C., Harris,K., Hart,M., Havlak,P., Hawes,A., Hernandez,J., Hernandez,O., Hodgson,A., Hogues,M., Holloway,C., Hollins,B., Homsi,F., Howard,S., Huber,J., Hukk,S., Hume,J., Jackson,L.E., Jackson,L.E., Jackson, E. T., Holloway, G., H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alsbrooks,S.L., Amaratunge,H.C., Are,J.R., Ayele,M.,
NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a 'working draft' sequence. It currently
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 173657)
                                                                                                                                                                                                                                                                                                            Chemistry: Dye-terminator Big Dye: 100% of reads Assembly program: Phrap; version 0.990329 Consensus quality: 105614 bases at least Q40 Consensus quality: 111210 bases at least Q30 Consensus quality: 115587 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center project name: GKAB
Center clone name: CH230-904
----- Summary Statistics
Sequencing vector: Plasmid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center: Baylor College of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bowie, S.,
Burch, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., ie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., coh, P., Burkett, C., Burrell, K.L., Byrd, N.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          David, R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Banks,T.,
```

REFERENCE AUTHORS

TITLE

JOURNAL

REFERENCE AUTHORS TITLE

JOURNAL

TITLE

JOURNAL

COMMENT

QY 71	43404 43404 68	28 43344	Qy 8 LeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAspAspAsnLysIleProSerLeu Oy	ery Match: 89,32% Indels: Gaps:	Pred. No.: 1.05e-40 Length: 173657 Score: 1183.50 Matches: 225 Percent Similarity: 69.07% Conservative: 5 Best Local Similarity: 67.57% Mismatches: 6	* 96947 97046: gap of unknown length * 97047 99897: contig of 2851 bp in	92301: gap of unknown length 94877: contig of 2576 bp in 94977: gap of unknown length 94977: gap of unknown length	2525	83651: gap of unknown length 86053: contig of 2402 bp in 86053: gap of unknown length 88659: contig of 2506 bp in	75649: gap of unknown length 79106: contig of 3457 bp in 79206: gap of unknown length 83551: contig of 4345 bp in	71413: gap of unknown length 73659: contig of 2246 bp in 73759: gap of unknown length 75549: contig of 1790 bp in	65076: gap of unknown length 67855: contig of 2779 bp in 67855: gap of unknown length 67955: gap of unknown length 71313: contig of 3358 bp in	60951: gap of unknown length 62718: contig of 1767 bp in 62818: gap of unknown length 64976: contig of 2158 bp in	57451: contig of 1809 57551: gap of unknown 60851: contig of 3300	55542: 55642:	51305: gap of unknown length 53117: contig of 1812 bp in	
PARKAY, SUBJECTION 2007, Settioning Sequencing Center, 4444 Forest Park Parkway, St. Louis, MO 63108, USA REFERENCE 3 (bases 1 to 249283) AUTHORS McPherson, J.D. and Waterston, R.H. Direct Submission JOURNAL Submitted (11-AUG-2002) Genome Sequencing Center, 4444 Forest Park Parkway, St. Louis, MO 63108, USA	AUTHORS McPherson, J. D. and Waterston, R.H. TITLE The sequence of Mus musculus clone 43463 JOURNAL Unpublished 43463 REFERENCE 2 (bases 1 to 249283) 71 AUTHORS McPherson, J. D. and Waterston, R.H. TITLE Direct Submission	47 ORGANISM Mus musculus Eukaryota; Met 43403 REFERENCE 1 (bases 1 to	27 ACCESSION AC124577. 2 GI:22203905 KEYWORDS HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS	AC124577 249283 bp DNA linear HTC	Qy 231 LeuValTyrSerAspTrpHisSerSerProValPheAla 243	Qy 211 ValGlyAspTyrileGlyIleTyrAlaSerIleLysThrAspSerThrPheSerGlyPhe 230	Qy 191 LeuSerGlyGlyAlaMetValArgLeuGluProGluAspGlnValTrpValGlnValGly 210	Qy 171 AsnGlyGluSerIleAlaSerPhePheGlnPhePheGlyGlyTrpProLysProAlaSer 190 :::	Qy 151 TyrTyrPheAlaValHisAlaThrValTyrArgAlaSerLeuGlnPheAspLeuValLys 170	Qy 131 AsnGluGlnGlyHisTyrAspAlaValThrGlyLysPheThrCysGlnValProGlyVal 150	Qy 111 SerGluSerArgValProProProSerAspAlaProLeuProPheAspArgValLeuVal 130	Qy 91 ProThrGlyProAlaGlyGluCysSerValProProArgSerAlaPheSerAlaLysArg 110	Qy 72GlyLeuProGlyProArgGlyAspProGlyProArgGlyGluAlaGlyProAlaGly 90	43704 AGGTAACAGCCTGGGAAGGCTGGGAGGCTTCTGACTTCTCCCCTTCCCCTCCATCCCT	Db 43644 CCCCAGGGAATCAGAAACCCTGATCACTCAACTTCAGATCTGCTCCCCCCAGG 43703	71	Db 43584 CCTCCATTCCAGTCAGCAGGAGGGGGGGGGGGGGGGGGG

```
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
misc_feature
                                    misc_feature
                                                                         misc_feature
                                                                                                              misc_feature
                                                                                                                                                   misc_feature
                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequencing vector: plasmid; 100%
Chemistry: Dye-primer ET; 0% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 243754 bases at least Q40
Consensus quality: 244589 bases at least Q30
Consensus quality: 244952 bases at least Q20
Insert size: 214000; agarose-fp
Insert size: 214000; agarose-fp
Quality coverage: 16.90 in Q20 bases; agarose-fp
Quality coverage: 10.27 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center project name: M_BA0162P10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Web site:http://genome.wustl.edu/gsc/index.shtml
Contact: submissions@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequencing vector: M13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOTE: This is a 'working draft' sequence. It currently consists of 10 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        104497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31174
31274
51766
51866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : Washington code: WUGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11,
                                                                         51866
                                                                                                            /note="assembly_name:Contig29"
31274. .51765
                                                                                                                                                                                                                                                                                                  /organism="Mus musculus"
/db_xref="taxon:10090"
/chromosome="UNK"
/note="assembly_name:Contig32"
104597. .135716
                                    /note="assembly_name:Contig31"
74509. .104496
                                                                                                                                                 /note="assembly_name:Contig28"
16139. .31173
                                                                                                                                                                                                                            /note="assembly_name:Contig16"
179. .5915
                                                                                                                                                                                                                                                                                                                                                                            ocation
                                                                                       'note-"assembly_name:Contig30"
                                                                                                                                                                                                                                                                               'clone="RP23-162P10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---- Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2002 this sequence version replaced gi:21426716.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             104496:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          104596:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178:
5915:
6015:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Summary Statistics
                                                                                                                                                                                         .16038
                                                                                                                                                                                                     assembly_name:Contig27"
                                                                         .74408
                                                                                                                                                                                                                                                                                                                                                                            'Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig
                                                                                                                                                                                                                                                                                                                                                                                           contig of 42429
gap of unknown
contig of 70938
                                                                                                                                                                                                                                                                                                                                                                                                                                contig of 31120 bp in
gap of unknown length
contig of 42429 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig of 10023 bp in length
gap of unknown length
contig of 15035 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig of 78 bp in length gap of unknown length contig of 5737 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unknown length
of 31120 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unknown length
of 29988 bp in
                                                                                                                                                                                                                                                                                                                                                                                               of 70938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown length of 22543 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               unknown length of 20492 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome
                                                                                                                                                                                                                                                                                                                                                                                             þþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                Š
                                                                                                      Š
                                                                                                                                                                                Š
                                                                       밁
                                                                                                                                               맑
                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                  DЬ
                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                            ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-42 (1-243) x AC124577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46151
                                                                                                                                                 46630
                                                                                                                                                                                                                                                                                                                                                                            46450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          46210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           45971
                                                                                                                                                                                                                          46570
                                                                                                                                                                                                                                                                                                  46510
                                                                                                                                                                                                                                                                                                                                                                                                                                                   46390
                                                                         46690
                                    153
                                                                                                            133
                                                                                                                                                                                      113
                                                                                                                                                                                                                                                             93
                                                                                                                                                                                                                                                                                                                                     74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73
                                                                                                                                                                                                                                                                                                                                                                                                              73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41 HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21
                                                                                           GlnGlyHisTyrAspAlaValThrGlyLysPheThrCysGlnValProGlyValTyrTyr 152
                                                                                                                                           SerargValProProProSeraspAlaProLeuProPheAspArgValLeuValAsnGlu 132

        MetArgProLeuLeuValLeuLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp

        ||||||||||||

                 PheAlaValHisAlaThrValTyrArgAlaSerLeuGlnPheAspLeuValLysAsnGly
                                                                                                                                                                                                                          GGGCCTGCGGGGGAGTGCTCGGTACCCCCACGATCAGCCTTCAGTGCCAAGCGATCCGAG
                                                                                                                                                                                                                                            GlyProAlaGlyGluCysSerValProProArgSerAlaPheSerAlaLysArgSerGlu 112
                                                                                                                                                                                                                                                                                                    CTACCTGGCCCACGTGGGGAGCCCGGGCCGTGGAGAGGCCAGGGCCCATGGGGGCCTATC 46569
                                                                                                                                                                                                                                                                                                                       ---ProGlyProArgGlyAspProGlyProArgGlyGluAlaGlyProAlaGlyProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCGGCACTTCAGATCTGCTCCCCACAGGAGGCAATAGCCAGGGAGTCTGGGAGGCTTAAG 46449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGTCCCGCCAGGGGGGCGCTACTCTCCCTCCATTCCAGTCGGGCTGGAGTGGGGCGAGGT 46329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTGGGTACATATTCTAGAGAGCACAGCAACTGCTCTGGTGGATCCTTTGGGGGTCAA 46269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCCGGGAGAGAAAGGCGAGGGCGGGAGACCGGGTAA-GAAGTCATTTTCGTTGCAGTG 46209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGCAGCCAAGGCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGAGGCCACTTCTTGCCCTTCTGCTTCTGGGTCTGGTGTCAGGCTCTCCTCCTCTGGAC
                                                                         CAGGGCCATTACGACCCCACTACTGGCAAGTTCACCTGCCAAGTGCCTGGCGTCTACTAC
                                                                                                                                                                                                                                                                                                                                                                          GATGGTTAATAGTCACCCTTCTGCGGCTCCTAATTTCTCCCCTCTCCATCCCCTGCAGGA 46509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTTCCAGGCACACCAGGTCAC
TTTGCTGTGCACGCCACTGTCTACCGGGCCAGCTTGCAGTTTGATCTTGTCAAAAAACGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTCTGCGGATGGAGGGGGGTGATTCAGCCCCCAGGGAATCAGAAACCCTGATGCCTCTAC 46389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_name:Cont1g34"
178346 249283
/note="assembly_name:Cont1g35"
59298 c 59123 g 65930 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6.51e-40
1167.50
66.38%
64.67%
88.11%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .178245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1-249283)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          others
```

46030 20

46090

172

46809

46749

46689

46629

92

73

73

73

73

73

46150 60

```
B
                                                                                    δõ
                                                                                                                           Qγ
                                                                                                                                                 밁
                                                                                                                                                              Qy
                                                                                                                                                                                   밁
                                                                                                                                                                                                   Ωy
                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
AR138195
LOCUS
  당양
                                    밁
                                                  δÃ
                                                                                                        뫄
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                            US-09-944-944-42 (1-243) x AR138195 (1-729)
                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                              Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        193
  361
                   121
                                     301
                                                       101
                                                                        241
                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213
                                                                                                                                                 121
                                                                                           81
                                                                                                                               61
                                                                                                                                                                    41
                                                                                                                                                                                      61
                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ARI38195
AR138195.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AR138195
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                    Sheppard, P.O. and Humes, J.M. Adipocyte-specific protein homologs Patent: US 6197930-A 10 06-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Unclassified
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unknown
                                                                                                                                                                                    HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCNCCNMGNWSNGCNTTYWSNGCNAARMGNWSNGARWSNMGNGTNCCNCCNCCNWSNGAY
                                                     ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                        GGNCCNMGNGGNGARGCNGGNCCNGCNGGNCCNACNGGNCCNGCNGGNGARTGYWSNGTN
                                                                                 GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                 CAYGGNWSNCARGGNYTNCCNGGNMGNGAYGGNMGNGAYGGNMGNGAYGGNGCNCCNGGN
                                                                                                                                                                                                                         ATGMGNCCNYTNYTNGTNYTNYTNYTNGGNYTNGCNGCNGGNWSNCCNCCNYTNGAY
                                                                                                                                                                                                                                    MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrSerAspTrpHisSerSerProValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspTyrIleGlyIleTyrAlaSerIleLysThrAspSerThrPheSerGlyPheLeuVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATTCTGACTGGCACAGCTCCCCAGTCTTCGCT 47022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATTACATTGGCATCTATGCCAGCATCAAGACAGACAGTACCTTCTCTGGATTTCTCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGGGTGCGATGGTAAGGCTAGAACCTGAGGACCAGGTGTGGGTGCAGGTGGGCGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases
                                                                                                                                                                                                                                                                                                                                                                   77
                                                                                                                                                                                                                                                                                                                                                                /organism-"unknown"
101 c 160 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
1. .729
                                                                                                                                                                                                                                                                                                                                                                                                                                1 to 729)
                                                                                                                                                                                                                                                                                7.96e-38
1072.00
78.60%
78.60%
80.91%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:14479704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                patent US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           729
                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                729 bp
$ 6197930.
                                                                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                   rt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                                                                                                                                                                                                                                                                                                  310 others
                                                                                                                                                                                                                                                                               729
191
52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT 16-JUN-2001
                                                                                          100
                  140
                                    360
                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46989
420
                                                       120
                                                                                                            240
                                                                                                                              80
                                                                                                                                                180
                                                                                                                                                                  60
                                                                                                                                                                                     120
                                                                                                                                                                                                       40
                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46929
```

```
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
AP001557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (29-MAR-2000) Masshira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC); 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170) On Nov 3, 2000 this sequence version replaced gi:8117391.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 182429)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P.,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y.
Homo sapiens 182,429 genomic DNA of 11q23
Published Only in DataBase (2000)
2 (bases 1 to 182429)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P.,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y.
Direct Submission
NOTE: This is a 'working draft' sequence. It currently consists 21 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AP001557

182429 bp DNA linear HTG 03-NOV-2000 Homo sapiens chromosome 11 clone RP11-680A7 map 11q23, WORKING
                                                                                       Web site: http://hgp.gsc.riken.go.jp/
Contact: hattori@gsc.riken.go.jp
Contact: hattori@gsc.riken.go.jp
Contact: hattori@gsc.riken.go.jp
Contact: Project Information
Center project name: Humbraftl1
Center clone name: RP11-680A7
Center clone name: RP11-680A7
Center clone name: RP11-680A7
Center clone name: PCR products; 100% of reads
Sequencing vector: PCR products; 100% of reads
Chemistry: Dye-terminator ET-amersham; 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 175597 bases at least Q40
Consensus quality: 17555 bases at least Q40
Consensus quality: 179768 bases at least Q20
Insert size: 180429; sum-of-contigs
Quality coverage: 9.01x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HTG; HTGS_PHASE1; HTGS_DRAFT.
HOMO sapiens DNA, clone:RP11-680A7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AP001557
AP001557.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DRAFT SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATHAARACNGAYWSNACNTTYWSNGGNTTYYTNGTNTAYWSNGAYTGGCAYWSNWSNCCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGNAARTTYACNTGYCARGTNCCNGGNGTNTAYTAYTTYGCNGTNCAYGCNACNGTNTAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTYTTYGGNGGNTGGCCNAARCCNGCNWSNYTNWSNGGNGGNGCNATGGTNMGNYTNGAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGNGCNWSNYTNCARTTYGAYYTNGTNAARAAYGGNGARWSNATHGCNWSNTTYTTYCAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                              Center: RIKEN Genomic Sciences Center(GSC) Center code: RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HTGS_PHASE1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GI:11094164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
```

of.

preserved

30208

30107

contig

cont

170561

cont cont Cont cont

19

contig of

conti

preserved

contig of

```
contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181019 182429 contig of 1411 pp in rength NOTE: This is a 'working draft' sequence. It currently consists of 21 contigs. The true order of the pieces is not known and their order in this sequence record is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       as soon as it is available and the accession number will be preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 30107: contig of 30107
30108 30207: gap of 100 bp
30208 54357: contig of 24150
                                                                                                                                                                                                                                                                                                                                                                                                                                    358 54457; gap of 100 bp
458 69839; contig of 15382 bp in length
840 69939; gap of 100 bp
940 84048; contig of 14109 bp in length
049 84148; gap of 100 bp
179 95177; contig of 11029 bp in length
                                                                                                                                                                                                                                                                                                                                                  gap of 100 bp
                                                                                                                                                                                                                                                                                                                         contig of 8669
                                                                                                                                                                                                                                                                                                                                                                             ap of 100 bp
contig of 11194 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                          p of 100 bp contig of 12486 bp in
                                                 2603
                                                                                                                                  3459
                                                                                                                                                             1649
                                                                                                                                                                                                   100 bp
1015 bp in
                                                                                                                                                                                                                                             6266
                                                                                                                                                                                                                                                                                                    8884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 bp
24150 bp in length
                                                                                                                                                                                                                                                                                                                                           100 bp
                                                                      100 bp
2744 bp
                                 00 bp
                                                                                                                                                                                                                                                        00 bp
                                                                                                                                                                                                                                                                                     dq 00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30107 bp
30107 bp
115382 bp
115382 bp
11029 bp
11109 bp
111194 bp
8867 bp
8864 bp
7212 bp
6215 bp
3915 bp
                                           bp
)3 bp in
dq
dq
                                                                                                  i pb iu
                                                                                                                                               gd
                                                                                                                                                                                                                                                                                               bp
4 bp in length
                                                                                                                                                                         đđ
                                                                                                                               đđ
                                                                                                                                                          đđ
                                                                                                                                                                                                                                                                     bp in
                                                                                                                                                                                    bp in length
                                                                                                                                                                                                                                          bp in length
                                                                                                                                                                                                                                                                                                                         bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bp in length
                  'n
                                                                                                                                'n
                                                                         'n
                                                                                                                                                          in length
                                                                                                                                                                                                                                                                                                                                                     in length
                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in
                                              length
                                                                                                   length
                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                     length
                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        leng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             leng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        leng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        are unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .ength
                 Ş
                                            밁
                                                                   QΥ
                                                                                                  В
                                                                                                                            Ş
                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                         US-09-944-944-42 (1-243) x AP001557
                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                        Pred. No.:
                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                 BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                              107923
                                                                                                  107866 GGAAGGGGTGGAGGAGGTACCCGTGCGGGAGGA---GGCGCTGGCCGAAGCTCAGGCAGG 107922
                                                                                                                             48
                  70
                                                                        68 GlyGly---
                                            GGCGGGGAGGGGTACGGTGACCTTAGAGTCGCCGCCCCCCCTGCGGCTGAGCCGCCGCTA 107982
                                                                                                                        GlyArgAspGlyArgAspGlyAlaProGlyAlaProGlyGluLysGlyGlu 67
                                                                                                                                                                                                                                                                                                              45724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181019
                                                                                                                                                                                                                                                                                                              þ
                                                                                                                                                                                                                                                                                                                                                                  178409
                                                                                                                                                                                                                                                                                                                                                                                             /note="assembl
                                                                                                                                                                                                                                                                                                                                      /note="assembly_fragment"
181019 .182429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment"
107864. .119057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 182429: contig of 1411 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="assembly_fragment clone_end:SP6 vector_side:left"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'note="assembly_fragment"
53300. .159565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'clone="RP11-680A7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chromosome="11"
                                                                                                                                                                                                                                                                                                            42083 c
                                                                                                                                                                                                2.29e-29
914.50
82.43%
82.43%
69.02%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .182429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           te="assembly_fragment"
                 -ArgPro------GlyLeuProGlyProArgGlyAspProGly 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "assembl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "assembl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "assembl
                                                                                                                                                                                                                                                                                                                                                                                "assembl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "assembl
                                                                                                                                                                                                                                                                                                                                                                                                                                      "assemb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .84048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .54357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . .153199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . .128134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .107763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .95177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .69839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .145887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .165152
                                                                                                                                                                                                                                                                                                                                                                  .18091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .163580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136903
                                                                                                                                                                                                                                                                                                            embly_fragment"
43875 g 48747 t
                                                                                                                                                                                                                                                                                                                                                                   ory_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                          y_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                    y_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           y_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               y_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     y_fragment clone_end:T7 vector_side:left*
                                                                                                                                                          (1-182429)
                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                   Gaps:
  2000 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in length
                                                                                                                                                                                                                          182429
183
0
                                                                        69
```

.70561 17276. 172762 172861:

.70560: gap of 1 172761: contig of 2 172861: gap of 1 175605: contig of

6 175705: gap of 106 178308: contig of 2 19 178408: gap of 1 19 180918: contig of 2 19 181018: gap of 1

70461 170560: 66902 167001: 63581 163680: 59566 159665:

contig of

163580: cr

contig contig of

of.

153299:

3299: gap 153199:

165252: gap of 166901: contig

of.

unt: gap of 170460: cc.

contig of

36904 137003:

145887: conti

contig of

gap of

contig

of

o H

: gap of 136903: cr

19058 119157:

64 107863:

Jap of 119057: ~

gap of

Loulseged, H.,

```
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
AC107174/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     108462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         107983 CTCTCACCCTGCCGCCCCGCTTACCCCGCAGGACTGCCGGGACCTCGAGGGGACCCCGGG 108042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              108282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108103
                                                                               Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P.,
Buhay, C., Burch, P., Burkett, C., Burrell, K.L., Byrd, N.C.,
Carron, T.F., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D.,
Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C.,
Cheveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R.,
Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A.,
Davila, M.L., Dalgado, O., Denn, A.L., Ding, Y., Dinh, H.H.,
Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H.,
Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J.,
Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M.,
Falls, T., Ferraguto, D., Flagg, N., Ford, J., Escotto, M.,
Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P.,
Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R.,
Gaorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K.,
Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J.,
Hennandez, O., Hodgson, A., Hogues, M., Holloway, C., Hollins, B.,
Harobson, R., Tila, Y., Tohnson, R., Tollah, S., Hume, J., Jackson, L.E.,
Jacobson, R., Tila, Y., Tohnson, R., Tollah, S., Hume, J., Jackson, L.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 142 LysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyrArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242 PheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC107174
AC107174.3 GI:21737488
HTG; HTGS_PHASE1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC107174

Rattus norvegicus clone CH230-215D1,

***, 78 unordered pieces.
Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L.C., Le
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Ayele, M., Banks, T.
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D.,
Barbaria, Barbaria,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Muzny, D.M., Adams, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Norway rat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCGAGGAGAGGCGGGACCCGGGGGCCCACCGGGCTGCCGGGGAGTGCTCGGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSerIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGlnPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCA 108162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAspAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerValPro 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTGCT 108527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCA-GGACATTACGACGCCGTCACCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 150653)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adio-Oduola,B., Ali-osman,F.R., Allen,c.,
Avele,M., Banks,T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
***
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IN PROGRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HTG 13-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Allen,C.,
      Lewis, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   108221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   108102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maheshwari, M., Mapua, P., Martin, R., Martindale, A., Martinez, E., Massey, E., Mawhiney, E., McLeod, M.P., Meador, M., Mei, G., Metzker, M., Miner, G., Miner, Z., Mitchell, T., Mohabbat, K., Morgan, M., Morris, S., Moser, M., Neal, D., Newtson, J., Newtson, N., Nguyen, A., Nguyen, N., Nguyen, N., Nickerson, E., Nwokenkwo, S., Oguh, M., Okwuonu, G., Oragunye, N., Oviedo, R., Parce, A., Payton, B., Peery, J., Perez, L., Pickens, R., Primus, E., Pu, L. L., Quiles, M., Ren, Y., Peters, L., Pickens, R., Primus, E., Pu, L. L., Quiles, M., Ren, Y., Rives, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari, N., Sisson, I., Sodergren, E., Sonalke, T., Sparks, A., Stanley, H., Stone, H., Sutton, A., Syatek, A., Tabor, P., Tamerisa, A., Tamerisa, K., Tang, H., Tansey, J., Taylor, C., Taylor, T., Telfrod, B., Thomas, N., Thomas, S., Usmani, K., Vasquez, L., Vera, V., Villalon, D., Vinson, R., Wang, O., Wang, S., Ward-Moore, S., Warren, R., Washington, C., Watlington, S., Wu, Y., F., Zhou, J., Zorrilla, S., Nelson, D., Weinstock, G., and Gibbs, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (13-JUL-2002) Human Genome Sequencing Center, Depoi of Molecular and Human Genetics, Baylor College of Medicine Baylor Plaza, Houston, TX 77030, USA on Jul 12, 2002 this sequence version replaced gi:18702083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (16-JAN-2002) Human Genome of Molecular and Human Genetics, Bay Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Li,J., Li,Z., Lichtarge,O., Lieu,C., Liu,J., Liu,W., Loul
Lozado,R.J., Lu,X., Lucier,A., Lucier,R., Luna,R., Ma,J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 78 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                        as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 150653)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 150653)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center project name: GPFT
Center clone name: CH230-215D1
Center Summary Statistics
Sequencing vector: Plasmid;
Chemistry: Dye-terminator Big Dye: 100% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Assembly program: Phrap; version 0.990329
Consensus quality: 86959 bases at least Q40
Consensus quality: 95630 bases at least Q30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Consensus quality: 102140 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Web site: http://www.hgsc.bcm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center: Baylor College of Medicine
                                                               4041
4141
5497
5597
7003
7103
                                                                                                                                                                                                                                                  1222
1322
2838
2938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -- Genome Center
                                                                                                                                                                                                                                                     4040:
                                                                                                                                                                                                                                                                                                           contig
gap of
contig
gap of
contig
gap of
contig
                                                                                                                                                                                     gap of contig
                                                                                                                                                                                                                                                  gap of contig
                                                                                                                         gap of contig
                                                                                                                                                                                                                                                                                                           of 1221
E unknown
J of 1516
                                                            unknown
of 1380
                                                                                                                         unknown
of 1406
                                                                                                                                                                                     unknown
of 1356
                                                                                                                                                                                                                                                  unknown
of 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genome Sequencing cs, Baylor College
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .tmc.edu/
                                                                                         bp in 1
length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0.990329
                                                                                                                                                                                                                                                                                                           in length
                                                                                                                         in length
                                                                                                                                                                                                                                                                                                                                                                     in length
                                                               length
```

of Medicine, One

of Medicine, One

length

length length

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-42 (1-243) x AC107174 (1-150653)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores: Pred. No.:
                                                     34167 ACTCCTGGGCCCCGGAGGGACCCCCGGCCGCGGGGGAGACCCAGACCCTGGGGGGGTCTAT 34108
                                                                                                                                                          34227
                                                                                                                                                                                                                                                            34287 TCGCCGGCAGGTNTACCGGTACGGGGAACCGTATCCCNCCCCGTTCANTCTTGGGTCGCA 34228
                                                                                                                                                                                                                                                                                                                                                                 34527 AGAGGGGCGGGGCCAGGGTAGAAAGGAGGGGGAGAGGGAAGGCAGAGGGGGGGAGGGGG 34468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70
  92
                                                                                                       74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11 GlyLeuAlaAlaGlySerProProLeuAspAspAsnLysIleProSerLeuCysProGly 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57 GlyAlaProGlyAlaProGlyGluLysGlyGluGlyGlyArg----- 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31 HisProGlyLeuProGlyThrPro----- 38
                                                                                                                                                          ---ProGlyProArgGlyAspProGlyProArg-GlyGluAlaGlyProAlaGlyProTh 92
rGlyProAlaGlyGluCysSerValProProArgSerAlaPheSerAlaLysArgSerGl 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----- 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76403
76503
77743
777843
77843
79323
79423
81156
81256
82416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71085
73267
73367
74540
74640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3.89e-23
765.00
51.14%
49.43%
57.74%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14639:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of gap of gap of gap of contig gap of co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           f unknown
of 2182
unknown
of 1173
unknown
f unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unknown
of 1733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
of 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of 1626
unknown
of 1731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of 1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of 1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bp in length length bp in length length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bp in length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----- 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    150653
174
6
45
128
                                                                                                                                                                                                       ----ProGlyLeu--- 73
                                                                                                                                                                                                                                                                                                                                                                                                                 ----- 70
                                                                                                                                                                                                                                                                                                               ----- 70
```

*	* :	• •	. *	* :	* *	· *	*	* ;	· *	*		* *		*	• •	. *	*		· *	*	+ +	*	* *		*			* *	٠ +	* :	* *	*	* *	*	* *	* *	* *	. *	* *		* :	* *		* *	*	*	* *		* *	. *	* *	. *
65920	64419	63167	63067	62026	61936	60621	58839	58739	57450	55571	55471	53681	52172	52072	7 C 4 C C	49031	48931	47779	46297	46197	44855	43594	43494	42360	40768	38953	38853	37560	36121	36021	34305	33241	31509	31409	28849	27306	27206	.25213	24138	22608	22508	20301	18800	18700	17259	16167	14621	14521	13384	11636	11536	9995
66019:	65919:	64318:	63166:	63066:	62025:	60720:	60620:	58838:	57549:	57449:	55570:	55470:	53580:	52171:	50584:	50484:	49030:	4///8:	47678:	46296:	44954:	44854:	43493:	42459:	42359:	40667:	38952:	38852:	37459:	36120:	34404:	34304:	33140:	31508:	31408:	28748:	27305:	25312:	25212:	24037:	22607:	20400:	20300:	18799:	17358:	17258:	16066:	14620:	13483:	13383:	11535:	10094:
ap	contiq	g	ap c	contig	9 1	аp	ğ.	gan of	gap of	contig	gap of	gap of	contig	gap of	gap of	contig	qap of	gap or	contig	gap of	gap of	contig	contig	gap of	contig	contig	gap of	contig	contig	gap of	gap of	contig	contig	gap of	gap or	contig	dap of	gap of	contig	contig	qap of	gap of	contig	n =	gap of	contig	9	9	gap of	0 1	contig of	
nkno	of 1501	of 1152	unknown	of 1041	or 1205	nkno	of 1782	unknown	늦	of 1879	2	unknown	of 1409	unknown	unknown	of 1454	unknown	of 1152	of 1382	unknown	unknown	of 1261	unknown	unknown	of 1592	of 1715	unknown	of 1293	of 1339	ξ 9	unknown	2 5	of 1632	unknown	of 2560	of 1443	unknown	unknown	of 1075	of 1430	unknown	unknown	of 1501	- ^	_	of 1092			unknown of 1037	of 1	of 1441	unknown
length		bp in	length	bp in length	bp in	length	bp in	length	length	bp in	length		bp in	length	Length	bp in	length	hn in length	ni dq	length	length	bp in	a p	length	bp in length	bp in	length	bo in length	bp in) lenath) lenath	length		bp in	length		ni dq	len Len	length	bp in length	nr dq	len	length	bp in	len gd	length	bp in length	bp in	length	- H	bp in	_5	length
	•																																																			
		<u>.</u>	.0						<u>.</u>		<u></u>	 م			٥		<u> </u>	_	,	<u> </u>	۵					<u> </u>	<u>۔۔</u>						م ر	В,	- w	: סרי																_

	88 CTATTCTGACTGGCACAGCTCCCCAGTCTTCGCT 33655)b 33688	\simeq
	232 lTyrSerAspTrpHisSerSerProValPheAla 243)у 2:	~
33689)b 33748	\simeq
232	212 yAspTyrIleGlyIleTyrAlaSerIleLysThrAspSerThrPheSerGlyPheLeuVa)y 2:	
33749	AGGGGTGCGATGGTGAGGCTAGAACCTGAGGACCAGGTATGGGTTCAGGTGGGTG)b 33808	\simeq
212	192 rGlyGlyAlaMetValArgLeuGluProGluAspGlnValTrpValGlnValGlyValGl)y 19	~
33809	CCAATCCATAGCTTCTTCCTTCCAGTTTTTTGGGGGGTGGCCAAAGCCAGCC	ეხ 33868	\mathbf{v}
192)y 1:	ب
33869	CTTTGCTGTCCATGCCACCTGTCTACCGGGCCAGCCTACAGTTTGATCTTGTCAAAAATGG	ob 33928	\underline{v}
172	152 rPheAlaValHisAlaThrValTyrArgAlaSerLeuGlnPheAspLeuValLysAsnGl)y 1:	
33929	GCAGGGACATTACGATGCCACTACCGGCAAGTTCACCTGCCAAGTGCCTGGTGTCTACTA	33988 dc	$_{2}$
152		2y 1:	Ų
33989	47 GAGCCGGGTACTTCCGCCANCGGACACACCCCNTNCCCTTCGCCGTGTGTG-CTCAATGA 33989	ob 34047	$_{2}$
132	112 uSerArgValProProSerAspAlaProLeuProPheAspArgValLeuValAsnGl)y 1:	
34048	34107 CGGCCTTGCGGGGGAGTGCTGGGTCCCCCCACAATCAGCCTTCAGTGCCAAGCGATCAGA 34048)b 341(\subseteq

Search completed: June 21, 2003, 17:37:23 Job time: 3052 secs

THIS PAGE BLANK (USPTO)

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Command line parameters:
-MODEL-frame+_p2n.model -DEV-xlh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -Q-Cgn2_1/USFF0_Sp001/US09944644/runat_13062003_150045_24207/app_query.fasta_1.391
-DB=N_Geneseq_101002 -QFMT=fastap -SUFFIX-rung -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS-bits -START=1 -END=-1 -MATRIX-blosum62 -TRANS-human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORES-pct -THR_MAX=100 -THR_WIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pt0 -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER=US0994494_@CGN_12_263_stunat_13062003_150045_24207 -NCDU=6 -ICFU=3
-NO_MMAP -LARGEQUERY -NGE_SCORES=0 -WAIT -DSPBLOCKE-100 -LOOGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xgapop 10.0 , Xgapext Ygapop 10.0 , Ygapext Ygapop 6.0 , Fgapext Fgapop 6.0 , Fgapext Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        June 21, 2003, 16:07:46; Search time 266 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2185239 seqs, 1125999159 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MRPLLVLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'SIDS2/gcgdata/geneseq/geneseqn-embl/NA1985.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA2002.DAT:*
                                     /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001A.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001B.DAT:*
                                                                                                                                                                          /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1997.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1998.DAT:*
                                                                                                                                                                                                                                                 /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1995.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1996.DAT:*
                                                                                                                                                                                                                                                                                                                                                         /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1993.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1990.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1991.DAT:*
                                                                                                       /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2000.DAT:*
                                                                                                                                             /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1999.DAT:*
                                                                                                                                                                                                                                                                                                                       /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1994.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                              /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1992.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2/gcgdata/geneseq/geneseqn-embl/NA1987.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gcgdata/geneseq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gcgdata/geneseq/geneseqn-embl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gcgdata/geneseq/geneseqn-embl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (without alignments)
2057.277 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4370478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /NA1988.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /NA1989.DAT:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result

	at ue	Length	DB	ID	cription
ימנ		1347	20	100 1	adipo
JΝ		1377))) (AAX87258	clone en
2 0		13//	2 2	862	Human PRO344 nucle
32		1377	21	AAD01241	PRO344
w		1377	21	AAA46907	encoding
·	•	1377	21	AAA49560	ם
1325	•	1377	22	AAS21424	Human cDNA sequenc
1295	•	728	22	AAF44971	TANGO 253
1295		728	22	AAF44995	secreted
1295		728	22	AAF44997	secreted
1295	٠	1338	22	AAF44970	TANGO 253
1295		1338	22	AAF44998	secreted
1293		728	22		secreted
1293	•	738 738	2 6		Human secreted pro
1291		1338	22	AAF44999	
1291	•	1338	22	AAF45000	secreted
1271	•	1001	21	AAZ61745	encoding I
1271		1001	2 2	AAC99678	n cell
1271	•	1015	ر د د	AB261635	Kar Conn isolated
1271		1015	22	AAC99568	Skin cell cDNA, SE
1271	٠	1015	24	ABL34720	DNA isolate
1258	•	729	22	AAF44973	ine TANGO 253
1258	٠	1263	22	AAF44972	TANGO 253
1256		729	3 22	AAF45041	secreted
1254	٠	720) N	AAF45009	Secreted
1254		729	22	4503	Murine secreted pr
1254	•	729	22	4	secreted
1254		1263	22	AAF45006	secreted
1254	٠	1263	22	ı сл	secreted
1254	٠	1263	2 22	5	Murine secreted pr
1072		729	20	4	Degenerate DNA enc
1048		3248	24	624	Human secreted
659	49.7	764	24	\sim	44:
535.5	•	601	22	-	
	٠	536	23	0	DNA encoding novel
		678	24	771	Human sbg1033026C1
4	٠	1002	24	771	Human sbg1033026C1
436	٠	1276		AAT51048	e adipoc
436	32.9	1276		103/	ACRPSO
436	32.9	1276		9611	Mouse acrp30 prote
	44 4 2	1113255 112325 113225 113225 113225 113225 113225 112225 112225 12227 11225 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12227 12	Core Match 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0 1325 100.0	Core Match Length DB	Core Match Length DB I 1325 100.0 1377 20 1325 100.0 1377 21 1325 100.0 1377 21 1325 100.0 1377 21 1325 100.0 1377 21 1325 100.0 1377 21 1325 100.0 1377 21 1325 100.0 1377 21 1325 100.0 1377 22 1295 97.7 728 22 1295 97.7 1338 22 1291 97.4 728 22 1291 97.4 728 22 1291 97.4 1338 22 1291 97.4 1338 22 1291 97.4 1338 22 1291 95.9 1001 21 1271 95.9 1001 21 1271 95.9 1001 21 1271 95.9 1001 21 1271 95.9 1001 22 1256 94.8 729 22 1256 94.8 729 22 1256 94.8 1263 22 1254 94.6 729 22 1254 94.6 729 22 1254 94.6 729 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1263 22 1254 94.6 1254 1254 1254 1254 1254 1254 1254 1254

ALIGNMENTS

RESUI AAX24 ID	RESULT 1 AAX24684 ID AAX24684 standard; cDNA; 1347 BP.
8× ×	AAX24684;
×	
D.T.	21-JUN-1999 (first entry)
×	
Œ	Human adipocyte-specific protein zsig39 cDN
×	
W	Adipocyte-specific protein; zsig39; human;
XX.	energy balance; nutrition; antimicrobial;
×	
SC	Homo sapiens.
×	
НÃ	Key Location/Qualifiers
Ή	CDS 198929
FT	/*tag= a

fatty acid metabolism;

437

497

```
; o
                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                 Ъ
                                                                          δÃ
                                                                                                              В
                                                                                                                                                δÃ
                                                                                                                                                                                     В
                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-944-944-42 (1-243) x AAX24684 (1-1347)
                                                                                                                                                                                                                                                                                                                                                                                 Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC This isolated polynucleotide encodes human adipocyte-specific CC protein zsig39 (AAW97984). Claimed polynucleotides comprise CC nucleotides 243-962, 252-962, 285-485, 285-485, 285-488, CC 285-491, 285-491, 491-926 of this isolated polynucleotide. CC Novel zsig39 polypeptides were initially identified by querying an CC EST database for secretory signal sequences characterised by an CC upstream methionine start site, a hydrophobic region of approximately CC 13 amino acids and a cleavage site. A single EST sequence was CC discovered, and the novel polypeptide encoded by the full-length CC cDNA allowed the identification of a homologue relationship with CC cDNA allowed the identification of a homologue relationship with CC adipocyte complement related protein Acr930 and adipocyte secreted CC protein apM1. A full-length clone was obtained from a lung tissue CC library. The zsig39 gene maps to the 11q23.3 region. Expression CC are claimed, as well as probes and primers (useful in diagnostic are claimed, as well as probes and primers (useful in diagnostic CC applications), and a method for modulating free fatty acid CC metabolism by administering a zsig39 polypeptide. The zsig39 cC cryppreservation, for surgical pretreatment to prevent injury due CC to ischaemia and/or inflammation, and as an antimicrobial agent, xx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 16; 109-111; 132pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Humes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9910492-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ZYMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999-204665/17
                                                   318
                                                                                                                     258
                                                                                                                                                                                       198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ) ZYMOGENETICS
                                                                                   41
                61
                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein -
                                                                                                                                                                                  AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                   HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                  GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                     AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97US-0056983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US17724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   198..251

**tag- b
/note- "alternatively nucleotides
252..926
/*tag- c
/note- "alternatively nucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  used
                                                                                                                                                                                                                                                                                                                                                                                                                               235 A;
                                                                                                                                                                                                                                                                                           7.57e-54
1325.00
100.00%
100.00%
100.00%
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Р0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modulate fatty acid metabolism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                  465
                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                             Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                           Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                  226
                                                                                                                                                                                                                                                                                                                                                                                                                                  7;
                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                  other;
                                                                                                                                                                                                                                                                                         1347
243
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          198-242
                                                                                                                317
                                                                                                                                                  40
                80
                                                                                  60
                                                                                                                                                                                    257
                                                 377
                                                                                                                                                                                                                     20
              ARRESULT 2
ARXED 12
ARXED 22
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
            20-NOV-1998;
05-JAN-1998;
29-APR-1998;
22-MAY-1998;
10-JUN-1998;
10-NOV-1998;
                                                                                                                                                                                                                                                      mat_peptide
                                                                                                                                                                                                                                                                                       sig_peptide
                                                                                                                                   05-JAN-1999;
                                                                                                                                                                    15-JUL-1999
                                                                                                                                                                                                     WO9935170-A2
                                                                                                                                                                                                                                                                                                                                                                                                             PRO344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX87258
                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81
                                                                                                                                                                                                                                                                                                                                                                                                               UNQ303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCAAGACAGACAGCATCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                             encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
            98US-0109304.

98US-0070440.

98US-0083500.

98US-0086414.

98US-0088742.

98US-0107783.
                                                                                                                                   99WO-US00106
                                                                                                                                                                                                                                    /*tag= l
272..955
/*tag= c
                                                                                                                                                                                                                                                                                       /*tag= 8
                                                                                                                                                                                                                                                                                                                                                                                                               cancer;
                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
227..958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       926
                                                                                                                                                                                                                                                                                                                                                                                                                                               human PRO344,
                                                                                                                                                                                                                                                                                                           ω
                                                                                                                                                                                                                                                                                                                                                                                                               tumour; diagnosis; therapy; human; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                             amplified
                                                                                                                                                                                                                                                                                                                                                                                                                                                 in tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                               cells
```

220 857 240 917 120 557 140 617 160 677 180 737

```
Percent Similarity:
Best Local Similarit
Query Match:
DB:
                                           Ş
                                                                                                Ş
                                                                                                                           밁
                                                                                                                                              Qγ
                                                                                                                                                                           밁
                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                 Qγ
                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
Pred. No.:
Score:
 Š
                        밁
                                                                         밁
                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-42 (1-243) x AAX87258 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This is the nucleotide sequence of cDNA clone DNA40592 (ATCC 209492) coding for human PRO344 (UNQ303) (see AAV06481). The clone was isolated from a foetal kidney library. Amplification of DNA40592 was observed in primary lung tumours and in primary colon tumours, suggesting an association with tumour formation or growth. Antagonists (e.g. antibodies) directed against PRO344 may have utility in cancer therapy. The invention identifies 14 genes (see AAX87234-67) that are amplified in the genome of tumour cells. Such amplification is expected to be associated with overexpression of the gene product and to contribute to tumorigenesis. The encoded proteins (see AAX0647-90) may be useful targets for the diagnosis and/or treatment (including prevention) of certain cancers, and may act as predictors of the prognosis of tumour treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Botstein D, G
Roy MA, Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antibody against proteins expressed tumor diagnosis and treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-430385/36.
P-PSDB; AAY06481.
                          647
                                               141
                                                                          587
                                                                                                  121
                                                                                                                           527
                                                                                                                                                  101
                                                                                                                                                                            467
                                                                                                                                                                                                                              407
                                                                                                                                                                                                                                                                             347
                                                                                                                                                                                                                                                                                                                                 287
                                                                                                                                                                                                                                                                                                                                                                                227
 161
                                                                                                                                                                                                    81
                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity:
                                                                                                                                                                                                                                                                                                        41
                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Fig 9; 162pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENENTECH
                                    GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                      AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                      ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                          GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVa1
                                                                                                                                                                                                                          H1sG1ySerG1nG1yLeuProG1yArgAspG1yArgAspG1yArgAspG1yAlaProG1y
                                                                                                                                                                                                                                                                                                                           MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                       GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGTCTAC
                                                                         GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                         CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                             ATGAGGCCACTCCTCCTGCTGCTGCTGCTGGGCCTGGCCGGCTCGCCCCCACTGGAC
                                                                                                                                                                           GGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       251 A; 422 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.71e-54
1325.00
100.00%
100.00%
100.00%
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۶
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ĀĽ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       232 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neoplastic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ž,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1377
243
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lawrence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cells, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DA;
                                                                                                                        586
                                                                                                                                                 120
                                                                         646
                                                                                                                                                                                                   100
                                                                                                                                                                                                                            466
                                               160
                                                                                                                                                                           526
                                                                                                                                                                                                                                                   80
                                                                                                                                                                                                                                                                            406
                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                             286
                                                                                                                                                                                                                                                                                                                             346
                                                                                                                                                                                                                                                                                                                                                                                                      20
```

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                       17-DEC-1997;
17-DEC-1997;
18-DEC-1997;
05-JAN-1998;
09-FEB-1998;
                                                                                                                                                                                                                               11-DEC-1997;
11-DEC-1997;
11-DEC-1997;
The present invention describes nucleic acids encoding PRO secreted and transmembrane proteins used therapeutically. The PRO proteins have cytostatic, anti-inflammatory, anti-prolliferative and immunosuppressive activity. The proteins and polynucleotides can be used in therapy, identification of homologues, raising antibodies and design of probes
                                                                                                                               (GETH
                                                                                                                                                                                               16-DEC
                                                                                                                                                                                                                                                                                                                                             Human; PRO
secreted pr
                                                 Claim
                                                                Nucleic
                                                                               P-PSDB;
                                                                                                                Baker KP,
                                                                                                                                                                                                                                                               25-FEB-1998;
                                                                                                                                                                                                                                                                              01-DEC-1998;
                                                                                                                                                                                                                                                                                                             W09928462-A2
                                                                                                                                                                                                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                                                                                                                                                                      AAX80052;
                                                                                                                                                                                                                16-DEC
                                                                                                                                                                                                                                                                                             10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                     AAX80052 standard; cDNA; 1377 BP.
                                                                                                                                                                                                                       11-DEC-1997;
12-DEC-1997;
                                                                                1999-371118/31.
DB; AAY17827.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   707
                                                2; Fig
                                                                                                                                ) GENENTECH
                                                                                                                                                                                                                                                                                                                                                                     PRO344 nucleotide sequence
                                                               acids encoding
                                                                                                                                                                                                                                                                                                                                            RO protein; tumour necrosis factor family; TNF; cytokin protein; transmembrane protein; inflammation disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GICTITGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chen
                                              20; 123pp; English.
                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                              97US-0069335.
97US-0069425.
97US-0069694.
97US-0069696.
97US-0069702.
97US-0069870.
97US-0069873.
97US-0068017.
98US-0070440.
98US-0074092.
                                                                                                                IJ,
                                                                                                                                                                                                                                       97US-0069334
                                                                                                                                                                                                                                                       98US-0075945
97US-0067411
                                                                                                                                                                                                                                                                               98WO-US25108
                                                                                                                                INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     955
                                                                                                                                                                                                                                              -0069278
                                                                                                                 Goddard
                                                               PRO secreted
                                                                                                                A,
                                                                                                                Gurney AL,
                                                                and
                                                                transmembrane
                                                               proteins
                                                                                                                                                                                                                                                                                                                                                    cytokine;
                                                                                                                                                                                                                                                                                                                                              88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
```

to proteins

```
RESULT 4
AAC58626
ID AAC5
XX
AC AAC6
                                                         В
                                                                     Š
                                                                                       밁
                                                                                                 Ş
                                                                                                                 Дb
                                                                                                                                 5
                                                                                                                                                   B
                                                                                                                                                               δÔ
                                                                                                                                                                               밁
                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                           δð
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                          Вb
                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-42 (1-243) x AAX80052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SSSSS
            AAC58626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and primers. They can be used in a that they have homology with, e.g. complement proteins may be used in
                           AAC58626 standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1377
                                                                      241
                                                                                                                                                                                                                 647
                                                          947
                                                                                       887
                                                                                                       221
                                                                                                                       827
                                                                                                                                     201
                                                                                                                                                                                   707
                                                                                                                                                                                                  161
                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                               587
                                                                                                                                                                                                                                                                              527
                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                           467
                                                                                                                                                                                                                                                                                                                                                                        347
                                                                                                                                                                                                                                                                                                                                                                                                       287
                                                                                                                                                                                                                                                                                                                                                                                                                                     227
                                                                                                                                                     767
                                                                                                                                                                    181
                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                         407
                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ب
                                                                                                                    GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 160
                                                                                                                                                                                                                                                                                                         IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpH1sSerSerPro
                                                                                                                                                                                                                                                      AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                     ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                             AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                           MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                          GTCTTTGCT
                                                                         ValPheAla
                                                                                        ATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                               GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                            CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                     GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGAGGCCACTCCTCCTGCTGCTGCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.71e-54
1325.00
100.00%
100.00%
100.00%
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251 A; 422
                                                                        243
                                                          955
                           1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ç
                          ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           range of diseases related to pro a PRO protein having homology to inflammatory responses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>ଜ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1377
243
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              other;
                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                             140
                                                                                                                      886
                                                                                                                                     220
                                                                                                                                                     826
                                                                                                                                                                  200
                                                                                                                                                                                  766
                                                                                                                                                                                                                                              646
                                                                                                                                                                                                                                                                           586
                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                           526
                                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                         466
                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                        406
                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                     346
                                                                                                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                                                                                   286
                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
```

```
antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis; osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis; idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis; systemic vasculitis; autoimmune haemolytic anaemia; dabetes mellitus; autoimmune thrombocytopaenia; immune-mediated renal disease; demyelinating disease; hepatobiliary disease; Whipple's disease; inflammatory bowel disease; gluten-sensitive enteropathy; autoimmune disease; immune-mediated skin disease; allergic disease; immunological disease; transplantation associated disease; graft rejection; graft-versus-host-disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; immune related disease; diagnosis; antlinflammatory; card dermatological; antlarthritic; antirheumatic; immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antianaemic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hepatotropic; virucide; antipsoriatic; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antithyroid; antidiabetic; nootropic; neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UNQ303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    encoding cDNA SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NO:240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cardiant;
```

Homo

14-SEP-2000

29-OCT-1999 29-NOV-1999 30-NOV-1999 30-NOV-1999 01-DEC-1999 01-DEC-1999 02-DEC-1999 02-DEC-1999 28-JUL-1999; 01-SEP-1999; 08-SEP-1999; 13-SEP-1999; 15-SEP-1999; 04-MAY-1999; 14-MAY-1999; 02-JUN-1999; 15-SEP-1999; 05-OCT-1999; 26-JUL-1999 23-JUN-1999; 20-JUL-1999; 08-MAR-1999; 02-MAR-2000; 28-APR-1999 20-APR-1999 12-APR-1999 23-MAR-1999 10-MAR-1999; 12-MAR-1999; 99WO-US1252 99US-0141758 99US-0144758 99US-0145698 99US-0145698 99US-014522 99WO-US20514 99WO-US20594 99WO-US21547 99WO-US23089 99US-0162506 99WO-US28211 99WO-US28211 99WO-US28211 99WO-US2821 99WO-US28563 99WO-US28563 99WO-US28563 99WO-US28563 99WO-US28563 99WO-US28563 99WO-US28563 99WO-US28563 99WO-US28565 2000WO-US05841 -Sn66 -OM66 -Sn66 99US-99US-99US-01 99US-01 99WO-US08615 99US-0128849 01 -0132371 0134287

GENENTECH

20-DEC-1999; 30-DEC-1999; 05-JAN-2000; 06-JAN-2000; 06-JAN-2000; 11-FEB-2000;

02-DEC

-1999;

Ashkenazi AJ, Kabakoff RC, Stewart TA, T Lu Y, Pan
Tumas D, Wa (P, Goddard A,
an J, Pennica
Watanabe CK, Gurney AL, Heb D, Shelton DL, Wood WI, Yan M; Hebert C, DL, Smith Henzel V; ¥.

```
Alignment
Pred. No.:
Score:
    멍
                     δÃ
                                                       문
                                                                          QΥ
                                                                                                         밁
                                                                                                                              Ş
                                                                                                                                                          В
                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                      ₽
                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                       뮵
                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-944-944-42 (1-243) x AAC58626 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention describes sixty four human PRO proteins which can CC be used in the treatment of immune related diseases. The human PRO CC proteins, anti-PRO antibodies, agonists and antagonists are useful for treating and diagnosing immune related disorders. The disorders are CC selected from systemic lupus erythematosus, rheumatoid arthritis, costeoarthritis, juvenile chronic arthritis, spondyloarthropathies, CC systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's CC syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic canaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus, CC immune-mediated renal disease, demyelinating diseases of the central CC and peripheral nervous systems, hepatobiliary diseases, inflammatory CC bowel disease, gluten-sensitive enteropathy and whipple's disease, CC autoimmune or immune-mediated skin diseases, allergic diseases, CC diseases including graft rejection and graft-versus-host-disease. CC diseases including graft rejection and graft-versus-host-disease. CC AAC58397 to AAC58678 represent PCR primers and hybridisation probes used in the isolation of human PRO sequences. AAC5879 to AAC58642 and CC AAB33414 to AAB3477 represent human PRO polynucleotide and protein CC sequences given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sixty four PRO polypeptides, useful in the diagnosis and treatment of immune related disorders, e.g. systemic lupus erythematosis, rheumatoid arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Мо
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000-572271/53.
DB; AAB33461.
  647
                            141
                                                       587
                                                                                                              527
                                                                                                                                                                 467
                                                                                                                                                                                                                        407
                                                                                                                                                                                                                                                                              347
                                                                                   121
                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                   287
                                                                                                                                                                                                                                                                                                                                                                                          227
                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                             21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23; Fig
AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                     AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                          HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                     MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                     GCTCCGGGAGAGAAAGGCGAGGCCGGGAGGGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                           CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGACGGCGACGCGCCGCCGGG
                                                                                                                                                                                                                                                                                                                                  GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                        ATGAGGCCACTCCTCCTGCTCCTGCGCCCTGGCCGGCCCGCCTCGCCCCACTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95; 309pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.71e-54
1325.00
100.00%
100.00%
100.00%
21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ດ
ເວ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1377
243
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    used
                                                      646
                                                                                140
                                                                                                           586
                                                                                                                                     120
                                                                                                                                                                                          100
                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                            40
                            160
                                                                                                                                                                 526
                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                                                           406
                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                346
                                                                                                                                                                                                                                                                                                                                                                                       286
```

```
RESULT 5
AAD012
AAD012
XX AAD02
XX AAD02
XX HOMO
DT 08-N
DT 08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                             01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
20-JUL-1999;
26-JUL-1999;
                                                                                                                                                   Chen
                 New composition useful for inhibiting neoplastic treating cancers, comprises PRO555, PRO344 or PRO their antagonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                               30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                     08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    breast; prostate;
CNS; leukemia; me
                                                                                                                                                                                                                                                                                                                                                                                                                           WO200032778-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human PRO344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAD01241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAD01241
                                                                                                                                                                                         (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        neoplastic cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRO344; DNA40592-1242;
                                                                                             2000-412325/35
)B; AAY71468.
                                                                                                                                                     ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                           GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                             98WO-US25108.
98US-0112850.
98US-0113296.
99US-0144758.
99US-0145698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92-1242; human; ATCC No: 209492; antiproliferative; 1 growth inhibitor; cytostatic; treatment; cancer; te; colon; lung; renal; ovarian; central nervous symelanoma; Expressed Sequence Tag; EST; secreted prometanoma;
                                                                                                                                                                                                                                                                                                                                               99WO-US28409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= a
/product=
/note= "De
/27..271
/*tag= b
272..955
                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= c
/product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers 227..958
                                                                                                                                                   A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cdna;
                                                                                                                                                   Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ECD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Derived from clone DNA40592-1242"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Human PRO344 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA
                                                                                                                                                   Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                             human PRO344 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone, DNA40592-1242
                                                                                                                                                     ~
                                                                                                                                                     Napier
                                 ic cell growth and PRO364 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    system;
protein;
                                     or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      766
```

```
Alignment
Pred. No.:
                                                                 pb pb
                                                                                                                   Ş
                                                                                                                                           밁
                                                                                                                                                     δδ
                                                                                                                                                                                        QΥ
                                                                                                                                                                                                              P Q
                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                         日
                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  &XSSSSSSSSSSSX&
                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-944-944-42 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is the cDNA clone, designated as DNA40592-1242, encoding the human PRO344 polypeptide. It is isolated from human foetal lung tissue cDNA library, identified using probes based on a consensus sequence DNA34398, derived from secreted protein extracellular domain (ECD) Expressed Sequence Tag (EST). This clone is assigned ATCC deposit No: 209492. PRO344 functions as a neoplastic cell growth inhibitor and is used for treating tumours, using an effective amount of PRO655, PRO364 and PRO344. This composition is especially useful for treatment of human cancers such as breast, prostate, colon, lung, renal, ovarian and CNS, leukemia and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
                                                                                                                                                                                            121
                                    827
                                                                                       181
                                                                                                                                           647
                                                                                                                                                           141
                                                                                                                                                                             587
                                                                                                                                                                                                               527
                                                                                                                                                                                                                                                  467
                                                                                                                                                                                                                                                                                                                     347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scores:
                                                    201
                                                                       767
                                                                                                        707
                                                                                                                         161
                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                     407
                                                                                                                                                                                                                                                                                                                                                        287
                                                                                                                                                                                                                                                                                                                                                                                          227
                                                                                                                                                                                                                                                                  81
                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                      41
                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20;
                                   PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                 ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                             AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                         HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                        GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                      TTTTTCGGGGGGTGGCCCAAGCCAGCCTCTCGCTCGGGGGGGCCATGGTGAGGCTGGAG
                                                                                                                                                                                                                                                                                    GCTCCGGGAGAGAAAGGCGAGGCCGGGAGGCCGGGACCTCGAGGGGACCCCC
                                                                                                                                                                                                                                                                                                                      Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                             7.71e-54
1325.00
100.00%
100.00%
100.00%
21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  251 A;
                                                                                                                                                                                                                                                                                                                                                                                                                            x AAD01241 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   472
                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ē,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H
''
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  other;
                                                                                                                                                                                                                                                                                                                                                                                                                                             1377
243
0
0
0
                                                                                                                                                                                           140
 946
                                                                     826
                                                                                                                         180
                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                   80
                 240
                                                                                      200
                                                                                                        766
                                                                                                                                           706
                                                                                                                                                                            646
                                                                                                                                                                                                                                                                                    466
                                                                                                                                                                                                                                                                                                                      406
                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                                                                                                                                                                                                                                                                                                         20
```

밁 δ 밁 Ş

```
RESULT 6
AAA46907
Best Local Similarity:
Query Match:
DB:
                                                                           Percent Similarity:
                                                        Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                   22-DEC-1998

08-MAR-1999

02-JUN-1999

01-SEP-1999

15-SEP-1999

30-NOV-1999

30-NOV-1999

01-DEC-1999

02-DEC-1999
                                                                                                  The present sequence encodes a novel human polypeptide. The specification describes novel polypeptides designated PRO201, PRO292, PRO327, PRO3165, PRO344, PRO347, PRO357, PRO357, PRO715, PRO1117, PRO509, PRO533 and PRO882. These genes are amplified in the genome of tumour cells. The polypeptides are believed to contribute to tumourigenesis. The polypeptides are useful target for the prognosis of tumour treatment. Antibodies against these polypeptides are useful in the treatment and diagnosis of neoplastic cell growth
                                                                                                                                                                                                                                                                      Botstein Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO201;
PRO715;
                                                                                                                                                                                                                New anti-polypeptide neoplastic cell growt
                                                                          Sequence
                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                            P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                              16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200037640-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tumourigenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA encoding novel polypeptide PRO344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA46907;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA46907
                                                ö
                                                                                                                                                                                                                                                                                                  (GETH
                                                                                            proliferation
                                                                                                                                                                                                                                           2000-452188/39
DB; AAY93688.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO292; PRO327; PRO1265; PRO1017; PRO1112; PRO509
                                                                                                                                                                                                                                                                                                  GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValPheAla
                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCTTTGCT
                                                                                                                                                                                               Fig
                                                                                                                                                                                                                                                                                Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                          ВP;
                                                                                                                                                                                               9;
                                                                                                                                                                                                                                                                                                                   98US-0113296.
99WO-USC05028.
99WO-USC1252.
99WO-US20111.
99WO-US21090.
99WO-US28313.
99WO-US2840.9.
99WO-US28301.
99WO-US28565.
                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US30095
                                                                                                                                                                                                               ptide antibody useful in a growth and proliferation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers 227..958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer; neoplastic cell growth;
                                                                                                                                                                                               220pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO327; PRO1265; PRO344; PRO343; PRO347; PRO357; PRO1112; PRO509; PRO853; PRO882; tumour cell;
                                                                                            in mammals.
7.71e-54
1325.00
100.00%
100.00%
100.00%
21
                                                                           251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                               Ņ
                                                                           Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   þ
                                                                           422
                                                                                                                                                                                                                                                                                Gurney
                                                                          Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВP
                                                                           472
                                                                                                                                                                                                                                                                                ΑL,
Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                          ç;
                                                                                                                                                                                                                                                                                Hillan
                                                                           232
                                                                                                                                                                                                                         the
                                                                          Η;
                                                                                                                                                                                                                         treatment
                                                                                                                                                                                                                                                                                ~
                                                                           0
1377
243
0
0
0
                                                                                                                                                                                                                                                                                Lawrence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proliferation;
                                                                                                                                                                                                                          and
                                                                                                                                                                                                                                                                                DA,
                                                                                                                                                                                                                         diagnosis
                                                                                                                                                                                                                                                                                Roy
                                                                                                                                                                                                                          of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SS
```

Qy

δĀ

밁 Qy В QΥ 밁 δÔ

В

γQ 밁 Q 망

닭

```
RESULT 7
AAA49560
ID AAA4
SXX
AC AAA4
XX
DT 25-S
XX
DE Huma
XX
ERW PRO;
KW PRO;
KW PRO;
KW PRO;
KW PRO;
KW PRO;
XX
KW ART!
KW ARCI
XX
OS Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-42 (1-243) X
                                                      PRO243;
PRO355;
             Homo
                                           antibody;
                                                                                               Human
                                                                                                                                         AAA49560
                                                                                                                                                             AAA49560
                                                                                                                    25-SEP-2000
             sapiens
                                                                          membrane
                                                                                                                                                                                                       947
                                                                                                                                                                                                                                               887
                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                      647
                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                               587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       527
                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                        827
                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                  767
                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                             707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      227
                                                                                                PRO344 cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                       imbrane bound protein; secreted protein; PRO357; PRO
PRO715; PRO241; PRO323; PRO299; PRO233; PRO344; PR
PRO353; PRO361; PRO365; transmembrane polypeptide;
PRO363; PRO361; PRO365; transmembrane polypeptide;
                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                          ValPheAla
                                                                                                                                                                                                                                                        IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                   ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                              PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                       ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                              ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                        CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                 GGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                                             cDNA;
                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA46907
                                                                                                                                                             1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1-1377)
                                           primer; human;
                                                                PRO347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               140
                                                                                                                                                                                                                                              946
                                                                                                                                                                                                                                                                                        886
                                                                                                                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                     706
                                                                                                                                                                                                                                                                                                                                                                                                                                                              646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                            220
                                                                                                                                                                                                                                                                                                                                 826
                                                                                                                                                                                                                                                                                                                                                                          766
                                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            346
                                                 δÃ
                                                                        Дb
                                                                                                                 B
                                                                                                                                                                                                                                                                  Query
DB:
                                                                                                                                                                                                                                                                                                            Pred.
Score:
                                                                                        δõ
                                                                                                                                     Qγ
                                                                                                                                                            밁
                                                                                                                                                                           δÃ
                                                                                                                                                                                                    밁
                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                      US-09-944-944-42 (1-243) x AAA49560 (1-1377)
                                                                                                                                                                                                                                                                                                                                 Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New human nucle polypeptides, do and diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gerritsen P
Hillan KJ,
                                                                                                                                                                                                                                                                                                                                                                        New human nucleic acids encoding secreted and transmembrane polypeptides which are designated as PRO polypeptides are described The membrane-bound proteins have various industrial applications, including as pharmaceutical and diagnostic agents. The membrane-bour proteins can also be employed for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interactic Anti-PRO antibodies are useful for the affinity purification of PRO from recombinant cell culture or natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-412324/35.
P-PSDB; AAB01318.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                      Sequence 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200032776-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                              Match:
                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                  347
            101
                                                                         407
                                                                                                                                                             287
                                                                                                                                                                                                     81
                                                                                              61
                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΚP,
                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Fig 17; 187pp;
                                                                                                                                                          MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          n nucleic acids e
ides, designated
nostic agents
                                            GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                  ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    и МЕ, Godda
J, Kljavin
                                 GGGCCGCGAGGAGAGGCGGGACCCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                          GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                     Botstein D,
ME, Goddard F
Kljavin IJ,
                                                                                                                                                                                                                                                                                                                                                      BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US25108.
98US-0112850.
98US-0113296.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers 227..958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= a
/product= PRO344 polypeptide
                                                                                                                                                                                                                                                                                                                                                      251
                                                                                                                                                                                                                                                                 7.71e-54
1325.00
100.00%
100.00%
100.00%
21
                                                                                                                                                                                                                                                                                                                                                     A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      encoding
d as PRO p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eaton DL, Ferrara N, Filvaroff
A, Godowski PJ, Grimaldi CJ, Gu
Napier MA, Roy MA, Tumas D, V
                                                                                                                                                                                                                                                                                                                                                      422
                                                                                                                                                                                                                                                                                                                                                      c;
                                                                                                                                                                                                                                                                                                                                                      472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      y secreted and
polypeptides,
                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                     <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                      232
                                                                                                                                                                                                                                                                                                                                                  T;
                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transmembrane
useful as pharmaceutical
                                                                                                                                                                                                                                                                 1377
243
0
0
0
                                                                                                                                                                                                                                                                                                                                                      other;
                                                                                                                                                                                                                                                                                                                                                                                                                   membrane-bound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ħ
                                                                                                                                                                                                                                                                                                                                                                                     interaction.
ion of PRO
```

DЬ Qy DЬ Qy В Qy 밁 Qy 밁 γ В γ

```
RESULT 8

AAS21424
ID 2AAS2
XX AAS2
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
             01-DEC-1999
01-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
03-DEC-1999
03-DEC-1999
16-DEC-1999
20-DEC-1999
30-DEC-1999
30-DEC-1999
30-DEC-1999
30-DEC-1999
30-DEC-1999
31-EB-2000
11-EB-2000
11-EB-2000
11-EB-2000
21-FEB-2000
21-FEB-2000
21-FEB-2000
01-MAR-2000
01-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              breast; prostate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage; ear; proliferation; glucose; free fatty acid; skeletal mu adipocyte; A-peptide; factor VIIA; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                 01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200140466-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human cDNA sequence encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAS21424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAS21424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          secretory and transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValPheAla
|||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GICTITGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpH1sSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCAAGACAGCAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                 2000WO-US00277
2000WO-US00376
2000WO-US03565
2000WO-US04341
2000WO-US04342
2000WO-US04414
2000WO-US04914
2000WO-US05004
2000WO-US05601
2000WO-US07377
                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                                                                                             99WO-US28301
99WO-US28551
99WO-US28564
99WO-US28564
99WO-US28555
99WO-US30095
99WO-US30095
99WO-US30099
99WO-US31243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for PRO344 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                free fatty acid; skeletal muscle; therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mammalian; cancer; lung;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               766
```

Percent Similarity:
Best Local Similarity:
Query Match:

7.71e-54 1325.00 100.00% 100.00% 100.00% 22

Length:
Matches:
Conservative:
Mismatches:
Indels:

1377 243 0 0 0

Gaps:

Score: Pred. Alignment

No.:

Sequence 1377

BP;

251 A; 422

Ç

US-09-944-944-42 (1-243) x AAS21424 (1-1377)

δ 밁 Qy В Š 밁 ş

61

466 80 406

60

40

286 20

346

407

347

41

287

21

```
CC PRO polypeptides. The PRO polypeptides are useful to detect other CC PRO polypeptides, to link bloactive molecules to cells expressing CC PRO polypeptides, to link bloactive molecules to cells expressing CC PRO polypeptides, to modulate biological activities of cells expressing CC PRO polypeptides, and to detect the presence of mammalian lung, colon, CC breast, prostate, rectal, cervical or liver tunours by comparing PRO CC polypeptide expression in a cell sample to that in a control sample. CC polypeptide expression in a cell sample to that in a control sample. CC tumour necrosis factor-slpha (TNF-slpha) from human blood, the crommon or differentiation of chondrocytes, the proliferation or CC proliferation or differentiation of inner ear utricular supporting cells or CC cartilage, the proliferation of inner ear utricular supporting cells or CC of T-lymphocytes, the release of a cytokine from peripheral blood CC monocytes (PBMCs), or the proliferation of endothelial cells. Some of the PRO polypeptides may modulate glucose or free fatty acid uptake by CC skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide conscription in binding interactions. The polynucleotides encoding CC prolypeptides can be used to generate probes, antisense RNA/DNA, CC transgenic or knock out animals and can be used in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gerritsen
Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isolated, secretory and transmembrane PRO polypeptide used to detect other PRO polypeptides, link bloactive molecules to cells expressing PRO polypeptides, and detect the presence of mammalian tumours e.g. lung, breast, prostate, cervical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-408281/43.
P-PSDB; AAU12352.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΚP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fig 361; 813pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ĭ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beresini M,
Œ, Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; 2000WO-US07532.
; 2000WO-US08439.
; 2000WO-US13705.
; 2000WO-US14042.
; 2000WO-US14941.
; 2000WO-US15264.
; 2000WO-US30873.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Deforge L, Desnoyers L, Filvaroff E, Gi
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
472 G; 232 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Σ
```

```
RESULT 9
AAF44971
ID AAF44971
AX AAF4
XX AAF4
XX Huma

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δδ
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δδ
Β
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                            New nucleic acids for treating atherosclerosis, infection, audisorders, brain disorders, tu
   Claim
                                  disorders, sclerosis
                                                                                                                                                  Leiby
                                                                                                                                                                                                                    18-JUN-1999;
                                                                                                                                                                                                                                                   19-JUN-2000;
                                                                                                                                                                                                                                                                                                                   WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                  neurological developmental
                                                                                                                                                                                 (MILL-) MILLENNIUM
                                                                                                                                                                                                                                                                                    28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                 Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immuniological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAF44971;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAF44971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human TANGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          527
 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
 Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpH1sSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                  and
                                                                                                                                                McKay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    253
                                                                                                                                                                                                                                                   2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                  asthma
                                                                                                                                                                                                                  99US-0336536.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORF
                                                                                                                                                Ç
                                                                                                                                                                                 PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ĕ.
                                            ing diseases and disorders, e. autoimmune diseases, obesity, tumors, diabetes, arthritis,
                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВP
 English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N
                                                arthritis, multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
```

```
. 19
                                                                                                                                                                                                                                                                                                                                                               Alignment
Pred. No.:
Score:
                      밁
                                ν
                                            밁
                                                         δÃ
                                                                        ₽
                                                                                               В
                                                                                                        γQ
                                                                                                                                 γQ
                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                       Query
DB:
         δ
                                                                                                                    멂
                                                                                                                                                밁
                                                                                                                                                          δ
                                                                                                                                                                         멍
                                                                                                                                                                                                 Вþ
                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                      DЬ
                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                         *8888888*
                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                          US-09-944-944-42 (1-243) x AAF44971
                                                                                                                                                                                                                                                                                                                                                                                                   The present invention provides the protein and coding sequences human and murine secreted or transformer proteins TANGO 253, 7 TANGO 281 and INTERCEPT 258. These are useful in the treatment coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                        Sequence 728
           241
                        660
                                               600
                                                                         540
                                                                                                            161
                                                                                                                         420
                                                                                                                                    141
                                                                                                                                                  360
                                                                                                                                                                                                                         181
                                   221
                                                           201
                                                                                    181
                                                                                                 480
                                                                                                                                                             121
                                                                                                                                                                          300
                                                                                                                                                                                     101
                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                  121
720
                                                                                                                                                                                                             81
                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                      21
       ValPheAla
                                                                                                GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                          MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
GICTITICT
                                                                                                                        GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                         CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                  BP;
                                                                                                                                                                                                                                                                                                                                                                                         108
           243
                                                                                                                                                                                                                                                                                                                                       1.13e-52
1295.00
99.59%
99.59%
97.74%
                                                                                                                                                                                                                                                                                                                                                                                        A; 249
                                                                                                                                                                                                                                                                                                                                                                                        Ç;
                                                                                                                                                                                                                                                                                                                          (1-728)
                                                                                                                                                                                                                                                                                                                                                                                         250
                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                         <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                        .<del>.</del>
                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                       728
242
0
1
1
                                                                                                                                                                                                                                                                                                                                                                                                                        TANGO
                                                                                                                                                                                                                                                                                                                                                                                                                             of.
                                   240
                                               659
                                                           220
                                                                         599
                                                                                    200
                                                                                                 539
                                                                                                            180
                                                                                                                                    160
                                                                                                                                                                                                  299
                                                                                                                                                                                                              100
                                                                                                                                                                                                                          239
                                                                                                                                                                                                                                                                                      40
                                                                                                                                                  419
                                                                                                                                                             140
                                                                                                                                                                         359
                                                                                                                                                                                     120
                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                          120
```

RESULT 10 AAF44995

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
Дb
              Ş
                                    밁
                                                 QΥ
                                                                   В
                                                                                      οy
                                                                                                     В
                                                                                                                      Ş
                                                                                                                                         В
                                                                                                                                                           Q
                                                                                                                                                                                                                                       Pred.
Score:
                                                                                                                                                                                                                                                                          US-09-944-944-42 (1-243) x AAF44995 (1-728)
                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma
                                                                                                                                                                                                                                                                                          The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, TANGO 281 and INTERCEPT 258. These are useful in the treatment occionary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 266;
                                                                                                                                                                                                                                                                                                                                                                                                                                Leiby KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MILL-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAF44995
                                                                                                                                                                                                                                                NO : :
                                                                                                                                                                                                                                                                                                                                                                                                               2001-050109/06.
 240
                                    181
                                                                        121
                  81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secreted
                                                      61
                                                                                         41
                                                                                                            61
                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                 MILLENNIUM
                                                                      HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly.
AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                          728
                                                                                                          GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                               MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                               McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0336536
                                                                                                                                                                                                                                                                          108
                                                                                                                                                                                                    1.13e-52
1295.00
99.59%
99.59%
97.74%
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA;
                                                                                                                                                                                                                                                                          Α,
                                                                                                                                                                                                                                                                                                                                                                                                                               Bossone
                                                                                                                                                                                                                                                                                                                                               332pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       related
                                                                                                                                                                                                                                                                          248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             728
                                                                                                                                                                                                                                                                          Ç
                                                                                                                                                                                                                                                                          250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      coding
                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                          <u>ი</u>
                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence
                                                                                                                                                                                                                                                                          Τ,
                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                          other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ
                                                                                                                                                                                                    728
242
0
1
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91.
                                                                                                                                                                                                                                                                                                             of.
                                                                                                                                                                                                                                                                                                                      TANGO
                                                                                                                                                                                                                                                                                                                              얁
                  100
                                                                        180
                                                                                         60
                                                                                                                           40
299
                                   239
                                                    80
                                                                                                                                             60
                                                                                                                                                               20
```

```
ARESULT 11
AAAF44997
ID AAF444997
ID AAF44
AC AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                      New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; plumonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                 Disclosure; Page 270;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAF44997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF44997
                                                                                                                                                                                                                                                                                                         (MILL-) MILLENNIUM
                                                                                                                                                                                                                                                                                                                                                       18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                             19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                           28-DEC-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-MAR-2001
  present invention and murine secre
                                                                                                                                                                                                                       2001-050109/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GICTITGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCAAGACAGACAGCCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein related
                                                                                                                                                                                                                                                                                                                                                       99US-0336536.
ntion provides the protein secreted or transmembrane
                                                                                                                                                                                                                                                                                                           PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                Bossone
                                                               332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВÞ
                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  coding sequence SEQ
and coding sequences proteins TANGO 253,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ:
  s of the TANGO 257,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140
```

SSSSS

```
RESULT 12
AAF44970
ID AAF4
XX
AC AAF4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-42 (1-243) x AAF44997
                   AAF44970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TANGO 281 and INTERCEPT 258. These are useful in the treatment coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No : :
                                                                                                                                                                                                                       420
                                                                     241
                                                                                     660
                                                                                                                      600
                                                                                                                                                       540
                                                                                                                                                                       181
                                                                                                                                                                                       480
                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                      221
                                                                                                                                      201
                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                            ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                             PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                     GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                            GCTCCGGGAGAAAAGGCGAGGGGGGGAGGCG-GGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                     AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                      HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                      CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGACGGCGCGCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   108 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.13e-52
1295.00
99.59%
99.59%
97.74%
                                                                    243
                  CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    249
                   1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1-728)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                728
242
0
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of
                                                                                                   240
                                                                                                                                                      599
                                                                                                                                                                      200
                                                                                                                                                                                       539
                                                                                                                                                                                                       180
                                                                                                                                                                                                                       479
                                                                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                      659
                                                                                                                                                                                                                                                        419
                                                                                                                                                                                                                                                                                          359
                                                                                                                                                                                                                                                                                                                            299
                                                                                                                                                                                                                                                                                                                                                            239
                                                                                                                                                                                                                                                                                                                                                                             80
                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                      δõ
                                                                        δ
                                                                                                       δÃ
                                                                                                                            밁
                                                         밁
                                                                                           D
                                                                                                                                        δÃ
                                                                                                                                                        뮵
                                                                                                                                                                           QY
                                                                                                                                                                                                                                                                                 US-09-944-944-42 (1-243) x AAF44970
                                                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                               Alignment
                                                                                                                                                                                                                                                                                                The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, TANGO 281 and INTERCEPT 258. These are useful in the treatment coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                    New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma
                                                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; plumonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                               Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                              (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                        No.:
                                                                                                                                                                                                                                                                Scores:
                                                          368
                                                                                            308
                                                                                                                              248
                                                                                                                                                                                                                                                                                                                                                                                                             2001-050109/06.
                                                                                                                                                              188
                                        81
                                                                          61
                                                                                                            41
                                                                                                                                             21
                                                                                                                                                            ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                    HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                   Page 210;
                         GGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                           McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US16883
                                                                                                                                                                                                                                                                                 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0336536.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           coding
                                                                                                                                                                                                             1.87e-52
1295.00
99.59%
99.59%
97.74%
                                                                                                                                                                                                                                                                                229 A;
                                                                                                                                                                                                                                                                                                                                                  332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                               Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence
                                                                                                                                                                                                                                                                                 423
                                                                                                                                                                                                                                                                                                                                                   English.
                                                                                                                                                                                                                                                                                ç;
                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                              (1-1338)
                                                                                                                                                                                                                                                                                 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ
                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                 226
                                                                                                                                                                                                                                                                                Ŧ;
                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                             1338
242
0
1
1
                                                                                                                                                                                                                                                                                                                  TANGO
of
                                                                                                                                                                                                                                                                                                                                    of the
```

γQ

밁

밁

120

426 90 367 60 307 40 247

04 pp 04

В **О**У 문 5 B 5

밁 δ B 8

В Qy 밁 δõ 밁 Ş 뮵 δõ

```
유
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    64
64
65
65
64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, 1 TANGO 281 and INTERCEPT 258. These are useful in the treatment coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                     New nucleic acids for treating diseases and disorders, e., atherosclerosis, infection, autoimmune diseases, obesity, disorders, brain disorders, tumors, diabetes, arthritis, sclerosis and asthma
                                                                                                                 HPI;
                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                       Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; plumonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                     Disclosure;
                                                                                                                                  Leiby
                                                                                                                                                  (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                   18-JUN-1999;
                                                                                                                                                                                    19-JUN-2000; 2000WO-US16883
                                                                                                                                                                                                      28-DEC-2000
                                                                                                                                                                                                                      WO200078808-A1
                                                                                                                                                                                                                                                                                                   Human secreted
                                                                                                                                                                                                                                                                                                                    28-MAR-2001
                                                                                                                                                                                                                                                                                                                                    AAF44998
                                                                                                                                                                                                                                                                                                                                                    AAF44998
                                                                                                                                                                                                                                       sapiens.
                                                                                                                2001-050109/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             161
                                                                                                                                                                                                                                                                                                                                                                                       907
                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                        847
                                                                                                                                                                                                                                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  547
                                                                                                                                                                                                                                                                                                                                                                                                                                                          787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   487
                                                                                                                                  KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                      GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                 McKay
                                                    Page 271;
                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                  protein related
                                                                                                                                                                   9908-0336536
                                                                                                                                 ú
                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                       915
                                                                                                                                                                                                                                                                                                                                                    CDNA;
                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                  Bossone
                                                    332pp; English
                                                                                                                                                                                                                                                                                                                                                    1338
                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                    ВP
                                                                                                                                                                                                                                                                                                 coding sequence SEQ ID NO:
                                                                            /, ear
, multiple
                                                                                             ė
                                                                                                                                                                                                                                                                 disorder,
                          s of the
TANGO 257
                    of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                        906
                                                                                                                                                                                                                                                                                                                                                                                                                                                         846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   546
                                                                                                                                                                                                                                                                                                                                                                                                                                       240
```

```
RESULT 14
AAF44994
ID AAF44
XX
AC AAF44
XX
DT 28-MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
Score:
                                                                밁
                                                                          δÃ
                                                                                         망
                                                                                                        Š
                                                                                                                          밁
                                                                                                                                    δÃ
                                                                                                                                                   밁
                                                                                                                                                                   QΥ
                                                                                                                                                                                    밁
                                                                                                                                                                                               Q
                                                                                                                                                                                                                뫄
                                                                                                                                                                                                                            ρy
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                   ρy
                                                                                                                                                                                                                                                                                                    뫄
                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                        ρy
                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                      Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-42 (1-243) x AAF44998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sox
                      AAF44994;
                                   AAF44994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         №
::
                                                                 907
                                                                             241
                                                                                             847
                                                                                                           221
                                                                                                                                         201
                                                                                                                                                       727
                                                                                                                                                                                     667
                                                                                                                                                                                                  161
                                                                                                                                                                                                                 607
                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                             547
                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                          487
                                                                                                                                                                                                                                                                                                      427
                                                                                                                                                                                                                                                                                                                                  368
                                                                                                                                                                                                                                                                                                                                                               308
                                                                                                                                                                                                                                                                                                                                                                                            248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scores:
                                                                                                                           787
                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                                                          188
                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                       ب
                                                                       ValPheAla
                                                                                             GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                     AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHlsTyrAspAlaValThr
                                                                                                                                                                                                                                                                        GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                         AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                      HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                    AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1338
                                    standard;
                                                                GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                            GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                          GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                              GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                  GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCG-GGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                               CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGACGGTGCGCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.87e-52
1295.00
99.59%
99.59%
97.74%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              229 A;
                                    cDNA;
                                                                915
                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              422
                                    728
                                    ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1-1338)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1338
242
0
1
1
0
                                                                                                                                                                                                 180
                                                                                              906
                                                                                                           240
                                                                                                                          846
                                                                                                                                         220
                                                                                                                                                       786
                                                                                                                                                                     200
                                                                                                                                                                                     726
                                                                                                                                                                                                                  666
                                                                                                                                                                                                                              160
                                                                                                                                                                                                                                                            140
                                                                                                                                                                                                                                                                         546
                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                  426
                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                             367
                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                              606
                                                                                                                                                                                                                                                                                                                                                                                            307
                                                                                                                                                                                                                                                                                                                                                                                                                         247
                                                                                                                                                                                                                                                                                                                                                                                                                                       20
```

28-MAR-2001

(first entry)

Human

secreted

protein

related

SEQ Ħ S O: 80.

Ş

```
Q
                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                             Alignment
Pred. No.:
                                                                   밁
                                                                                         δÃ
                                                                                                                   В
                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                               Ω
                                                                                                                                                                                                                                                                                                                                                                                                                              δõ
                  д
                                      ν
                                                                                                                                                                                                                                                                                                          US-09-944-944-42 (1-243) x AAF44994 (1-728)
                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention provides the protein and coding sequences of th human and murine secreted or transmembrane proteins TANGO 253, TANGO TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-JUN-2000; 2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MILL-) MILLENNIUM PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; mouse; ;
INTERCEPT 258;
                                                                                                                                                                                                                                                                                                                                                                                             ₹
::
                                                                                                                                                                                                                                                                                                                                                                                                        Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens.
                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-050109/06.
  121
                        300
                                             101
                                                                       240
                                                                                                                     181
                                                                                           81
                                                                                                                                          61
                                                                                                                                                                                         41
                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KR,
                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                           HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                           AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                 ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                               AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                    GGGCCGCGAGGAGAGGCGGGACCCGCGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                   GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCG-GGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                 CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                              BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  secreted protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0336536.
                                                                                                                                                                                                                                                                                                                                                                                                                             107 A;
                                                                                                                                                                                                                                                                                                                                   1.4e-52
1293.00
99.59%
99.18%
97.58%
22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                             250 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                              250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TANGO253; TANGO 257; TANGO 281;
                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
                                                                                                                                                                                                                                                                                                                                  Gaps:
                                                                                                                                                                                                                                                                                                                                                        Conservative: Mismatches:
                                                                                                                                                                                                                                                                                                                                              Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                             Τ;
                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                             other;
                                                                                           100
                                                                                                                                                                                                              120
                       359
                                            120
                                                                    299
                                                                                                                   239
                                                                                                                                          80
                                                                                                                                                                 180
                                                                                                                                                                                         60
                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                            60
```

```
ARFSULT 1
AAF4 5001
ID AAF4 5001
ID AAF4 5001
AAF AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
AC AAF
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                    human
TANGO
                                        coronary, pulmonary, olfa developmental and kidney
                                                                                                                                      The
                                                                                                                                                                                                                                                  atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple
                                                                                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                                                                                                                                       Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                              Disclosure; Page 274-275;
                                                                                                                                                                                                                             sclerosis
                                                                                                                                                                                                                                                                                               New nucleic acids for treating diseases and disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF45001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAF45001
                                                                                                                                                                                                                                                                                                                                                                                                                                   (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-JUN-2000; 2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                             present invention provides the protein and coding sequences of an and murine secreted or transmembrane proteins TANGO 253, TANG GO 281 and INVERCEPT 258. These are useful in the treatment of onary, pulmonary, olfactory, immunological, neurological,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                            2001-050109/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mouse; secreted protein; TANGO253; TANGO 257; TANGO 281;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and asthma
                                                                                                                                                                                                                                                                                                                                                                                    McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                         Bossone
                                            disorders.
                                                                                                                                                                            332pp;
                                                                                                                                                                                                                                                                                                                                                                                         s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      coding sequence SEQ
                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ID NO:
                                                                                                                                                                                                                                                                                             e.g.
                                                                                                              TANGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
```

Sequence 1338

BP;

228

P. 424

Ç

460

```
δÃ
                                                 Ъ
                                                              Ş
                                                                           В
                                                                                     Š
                                                                                                     밁
                                                                                                                Ş
                                                                                                                             В
                                                                                                                                        ρ
                                                                                                                                                      밁
                                                                                                                                                                 Ş
                                                                                                                                                                               В
                                                                                                                                                                                          Ş
                                                                                                                                                                                                                  ρy
Search completed: June 21, 2003, 16:46:35 Job time : 292 secs
                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                           Query Match:
DB:
                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                             US-09-944-944-42 (1-243) x AAF45001 (1-1338)
                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores: Pred. No.:
                          907
                                                  847
                                                                                                                             667
                                                                                                                                                      607
                                                                                                                                                                               547
                                                               221
                                                                           787
                                                                                        201
                                                                                                     727
                                                                                                                 181
                                                                                                                                          161
                                                                                                                                                                   141
                                                                                                                                                                                            121
                                                                                                                                                                                                        487
                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                 427
                                                                                                                                                                                                                                                          368
                                                                                                                                                                                                                                                                                   308
                                                                                                                                                                                                                                                                                                            248
                                                                                                                                                                                                                                                                                                                                     188
                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                        21
                        ValPheAla 243
||||||||
GTCTTTGCT 915
                                                                                                   GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 160
                                                                                                                                                                             GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                        ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp 120
                                                                                                                                                                                                                                                                                 ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                          CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                       CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                           2.32e-52
1293.00
99.59%
99.18%
97.58%
                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                        180
                                                                                                                                                                             606
                                                                                                                                                                                          140
                                                                                                                                                                                                                                            100
                                                                                                                                                                                                       546
                                                                                                                                                                                                                                                         426
                                                                                                                                                                                                                                                                                             60
                                                  906
                                                              240
                                                                          846
                                                                                      220
                                                                                                   786
                                                                                                               200
                                                                                                                            726
                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                   367
                                                                                                                                                                                                                                                                                                           307
                                                                                                                                                                                                                                                                                                                                    247
                                                                                                                                                                                                                                                                                                                                                 20
```

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Command line parameters:

-MODEL-frame+_p2n.model -DEV=xlh
-O_-Cgn2_1/USPTO_Spool_US09944944/runat_13062003_150047_24269/app_query.fasta_1.391
-DB-Issued_Patents_NA -QFMT-fastap -SUFFIX-rni -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS-bits -START=1 -END=-1 -MATRIX-blosum62 -TRANS-human40.cdi
-LIST-45 -DOCALIGN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN-0 -ALIGN=15
-MODE-LOCAL -OUTEMT=pto -NORM-ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER-US09944944 -@CGN_1_1_40_@runat_13062003_150047_24269 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                      1258
1072
535.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xgapop 10.0
Ygapop 10.0
Ygapop 6.0
Fgapop 6.0
Delop 6.0
                                                                                                                                                                                                                                                     Query
   100.0
97.7
97.7
95.9
95.5
94.9
94.9
94.9
32.6
32.6
                                                                                                                                                                                                                                      Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  441362 seqs, 153338381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            June 21, 2003, 16:36:49; Search time 57 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-944-944-42
1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Maximum Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MRPLLVLLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Copyright
                                                                                                                                                                                                                                                                                                                                                                                               /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCOMB.seq:*
/cgn2_6/ptodata/1/ina/BCOMB.seq:*
                                                                                                                                                                                                                                      Length DB
 1338
1001
1015
729
1263
729
601
1276
1313
4517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6 (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xgapext
Ygapext
Fgapext
Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100%
                              US-09:140-804-1
US-09:336-536-2
US-09-336-536-2
US-09-188-930-218
US-09-188-930-30
US-09-188-930-30
US-09-336-536-8
US-09-336-536-8
US-09-336-536-74
US-08-463-911-1
                                                                                                                                                                                                                                      ID
                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (without alignments)
1307.411 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                882724
                                 Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                             Sequence
Sequence
                                                                                                                                                                                                                                  Description
Sequence
                                                                                                                                           Sequence
                                                                                                                                                              Sequence
                                                 1, Appli
2, Appli
11, Appli
21, Appli
21, Appl
20, Appl
30, Appli
29, Appli
29, Appli
30, Appli
310, Appli
310, Appli
310, Appli
                  App1:
```

44444493365445545454545454545454545454545454545
369 399 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 2066 20
30.1 226.5.5 226.5.5 221.6.5 221.6.5 221.6.5 221.6.5 221.6.5 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 220.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3 200.3
11107 11333 1839 1839 983 11123 11123 11123 11123 11123 11123 1123 1123 1123 1123 1123 1123 1123 1124 1157 1254 1368 1368 1368 1368 1368 1368 1368 1368
S 4 1 2 5 5 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7
US-09-188-930-217 US-08-93-374-1 US-08-99-335-1 US-08-99-336-1 US-08-99-336-1 US-09-247-155-153 US-09-188-930-28 US-09-188-930-29 US-09-188-930-19 US-08-55-669-11 US-09-073-663-11 US-08-655-066-1 US-08-655-066-1 US-08-655-066-1 US-08-93-467A-1 US-08-93-467A-1 US-08-93-467A-1 US-08-93-467A-1 US-08-93-467A-1 US-08-93-48-20 US-08-159-784-1 US-08-159-784-1 US-08-794-795-1 US-08-794-795-1 US-08-794-795-1 US-08-399-889-1
Sequence 217, Appli Sequence 1, Appli Sequence 1, Appli Sequence 26, Appli Sequence 27, Appli Sequence 28, Appli Sequence 28, Appli Sequence 29, Appli Sequence 1, Appli Sequence 11, Appli Sequence 21, Appli Sequence 1, Appli Sequence 20, Appli Sequence 5, Appli Sequence 151, Appli Sequence 151, Appli Sequence 151, Appli Sequence 5, Appli Sequence 151, Appli Sequence 151, Appli Sequence 1, Appli

ALIGNMENTS

RESULT 1 US-09-140-804-1

```
US-09-944-944-42 (1-243) x US-09-140-804-1 (1-1347)
                                                              Percent Similarity:
Best Local Similarity:
                                                                                                                                 Alignment Scores:
                                                Query Match:
                                                                                                   Score
                                                                                                                     Fred.
                                                                                                                                                                    us-09-140-804-1
                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                       EARLIER APPLICATION NUMBER: 60/056,983 EARLIER FILING DATE: 1997-08-26
                                                                                                                                                                                  NAME/KEY: CDS
LOCATION: (198)...(926)
                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                        ENGTH: 1347
                                                                                                                   No.:
                                             9.91e-88
1325.00
100.00%
100.00%
100.00%
                                                                Length:
Matches:
Conservative:
Mismatches:
                                 Indels:
Gaps:
                                 1347
243
0
0
0
```

1 MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp 20

```
PATEIL...

PATEIL...

APPLICANT: Leiby, K.

APPLICANT: MCKAY, C.

APPLICANT: MCKAY, C.

APPLICANT: BOSSONE, S.

APPLICANT: BOSSONE, S.

FILE REFERENCE: 7853-144

CURRENT APPLICATION NUMBER: US/09/336,536

CURRENT APPLICATION NUMBER: US/09/336,536

CURRENT FILING DATE: 1999-06-18

NUMBER OF SEQ ID NOS: 75

PATEILING TO.
  Alignment : Pred. No.: Score:
                                       ; TYPE: DNA
; ORGANISM: Homo
US-09-336-536-2
                                                                                                                                                                                                                                요. 성
                                                                                                                                                                                                    RESULT 2
US-09-336-536-2
                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                 40 A0
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                           Ωy
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                               β δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                      Sequence 2, Application Patent No. 6406884 GENERAL INFORMATION:
                       Scores
                                                                                                                                                                                                                                918
                                                                                                                                                                                                                                                                    858
                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                         798
                                                                                                                                                                                                                                                                                                                                             738
                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                 678
                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                     618
                                                                                                                                                                                                                                                                                                                                                                                                                                                        558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      378
                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                      GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                               GTCTTTGCT
                                                                                                                                                                                                                                                 ValPheAla
                                                                                                                                                                                                                                                                    ATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                            IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                          GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHiSTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                    GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
   7.19e-86
1295.00
                                                                                                                                                                                                                                926
                                                                                                                                                                                                                                                 243
                                                                                                                                                                                           US/09336536
   Length: Matches:
                                                                                                                                     THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100
                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                    917
                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                       857
                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                      617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                497
                                                                                                                                                                                                                                                                                                                                           797
                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                737
                                                                                                                                                                                                                                                                                                                                                                                                                   677
                                                                                                                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 257
; Sequence 1, Application US/09336536
; Patent NO. 6406884
; GENERAL INFORMATION:
APPLICANT: Lelby, K.
APPLICANT: MCKay, C.
; APPLICANT: MCKay, C.
; APPLICANT: MCKay, C.
; PILE REFERENCE: 7853-144
; CURRENT APPLICATION NUMBER: US/09/336,536
; CURRENT FILING DATE: 1999-06-18
; NUMBER OF SEQ ID NOS: 75
; SOFTWARE: PatentIn Ver. 2.0
                                                                                                                 RESULT 3
US-09-336-536-1
                                                                                                                                             밁
                                                                                                                                                            δÃ
                                                                                                                                                                                               γQ
                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                               밁
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                    ρ
                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-944-944-42
                                                                                                  e 1,
                                                                                                                                                                               660
                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                              480
                                                                                                                                            720
                                                                                                                                                             241
                                                                                                                                                                                                  221
                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21
                                                                                                                                                    ValPheAla
                                                                                                                                                                                                                                                                                           IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                              ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                   PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                          GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                  ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·ATCAAGACAGACAGCATTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                    CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                        GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                           CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1-243) x US-09-336-536-2 (1-728)
                                                                                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99.598
99.598
97.748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches: Indels: Gaps:
                                                USES
```

479

120

299

239 80

359

180

60

120 40 60 20

180

240

Cells

```
Alignment
Pred. No.:
Score:
RESULT 4
US-09-188-930-218
; Sequence 218, Application
; Patent No. 6150502
; GENERAL INFORMATION:
                                                  밁
                                                             Qγ
                                                                                 D Q
                                                                                                                          8
8
                                                                                                                                                           Qy
                                                                                                                                                                            g g
                                                                                                                                                                                                          ф
                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                           δĀ
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                            Ωy
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: DNA
; ORGANISM: Homo
US-09-336-536-1
                                                                                                            В
                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                         Ω
                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-944-944-42 (1-243) x US-09-336-536-1 (1-1338)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q ID NO
LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scores:
                                                  907
                                                                                 847
                                                                                                                                                                                                                                                547
                                                                                                                                                                                                                                                                                487
                                                                241
                                                                                                 221
                                                                                                                787
                                                                                                                                                727
                                                                                                                                                                181
                                                                                                                                                                                667
                                                                                                                                                                                               161
                                                                                                                                                                                                                607
                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                               427
                                                                                                                                                                                                                                                                                                                                              368
                                                                                                                                                                                                                                                                                                                                                                              308
                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                             248
                                                                                                                                                                                                                                                                                                                                                                                                                                              188
                                                                                                                                                                                                                                                                                                                              18
                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1
1338
                                                                                                                                                                                                              GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                              GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                      AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                 GTCTTTGCT
                                                                ValPheAla
                                                                                ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                TTTTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAG
                                                                                                                                                        PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                               ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                              GGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                              GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCG-GGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                  915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.46e-85
1295.00
199.59%
99.59%
97.74%
                                                                243
                 US/09188930A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1338
242
0
1
                                                                                 906
                                                                                                                                                                                                                                                                                                                              100
                                                                                               240
                                                                                                               846
                                                                                                                               220
                                                                                                                                               786
                                                                                                                                                               200
                                                                                                                                                                               726
                                                                                                                                                                                               180
                                                                                                                                                                                                               666
                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                               606
                                                                                                                                                                                                                                                               140
                                                                                                                                                                                                                                                                               546
                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                              486
                                                                                                                                                                                                                                                                                                                                              426
                                                                                                                                                                                                                                                                                                                                                            80
                                                                                                                                                                                                                                                                                                                                                                             367
                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                            307
                                                                                                                                                                                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                                                                                                            247
                                                밁
                                                              Š
                                                                                            Š
                                                                                                                           Š
                                                                                                                                           В
                                                                                                                                                            Q
                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Strachan, Lorna
APPLICANT: Sleeman, Matthew
APPLICANT: Onrust, Rene
APPLICANT: Murison, James Greg
TITLE OF INVENTION: Compositions Isolated From Ski
TITLE OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000,1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT FILING DATE: 1998-11-09
Š
                밁
                            Š
                                                                                밁
                                                                                                               밁
                                                                                                                                                                                            δ
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                              吊
                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                   Query
                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                            US-09-944-944-42 (1-243) x
                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-188-930-218
                                                                                                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 218
LENGTH: 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Watson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                    No . :
                                                                                                                                                                                                                                                                                                                                                                                                                                             Scores:
                                                                                                                818
                                                                                                                                                               121
                                                                                                                                                                               498
                                                                                                                                                                                                                                                                                                                                              198
                                                                                                                               141
                                                                                                                                                558
                                                                                                                                                                                                               438
                                                                                                                                                                                                                                               378
                                                                                                                                                                                                                                                                               318
                                201
                                                                181
                                                                                               161
                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                              258
                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                             21
                                                                                                                                                                                                                                                                                                                                            AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
               ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                      HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                ACACCCCTACCCTTCGACCGTGTGCTGCTCAATGAGCAGGGACATTACGATGCCACTACC
                                                                                                                                                                              CACGGCAGCCAAGGCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGA
IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                              GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTCCCAGGCACACCAGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             James
                                                                                                                                                                                                                                                                                                                                                                                            5.69e-84
1271.00
97.12%
95.06%
95.92%
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Windows
                                                                                                                                                                                                                                                                                                                                                                             US-09-188-930-218 (1-1001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Version
                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Skin
                                                                                                                                                                                                                                                                                                                                                                                           1001
231
5
7
0
```

100

437 80 377 60 317 40 257

240 871 220 811 200 751

```
APPLICANT: Watson, James D.
APPLICANT: Strachan, Lorna
APPLICANT: Strachan, Matthew
APPLICANT: Strachan, Matthew
APPLICANT: Onrust, Rene
APPLICANT: Onrust, Rene
APPLICANT: Murison, James Greg
APPLICANT: Murison, James Greg
FITLE OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000.1011c1
CURRENT APPLICATION UNMBER: U$/09/188,930A
CURRENT FILING DATE: 1998-11-09
NUMBER OF SEQ ID NOS: 348
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 30
LENGTH: 1015
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                           뫄
                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                   US-09-944-944-42 (1-243) x US-09-188-930-30 (1-1015)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; NAME/KEY: unsure
; LOCATION: (545)...(545)
US-09-188-930-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-188-930-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 30, Application Patent No. 6150502 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
              141
                                                                                          512
                                                                                                                                                                                              392
                                                                                                                                                                                                                                                 332
                                                                                                                                                                                                                                                                                                  272
                                                                                                                                                                                                                                                                                                                                                     212
                                                                 121
                                                                                                                  101
                                                                                                                                             452
                                                                                                                                                                                                                                                                       41
                                                                                                                                                                     81
                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                           \vdash
                                                                                       GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                     AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                       GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                 AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                             MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                  ATGAGGCCACTTCTTGCCCTGCTGCTTCTGGGTCTGGCATCAGGCTCTCCTCCTCTGGAC
                                      ACACCCCTACCCTTCGACCGTGTGCTGCTCAATGAGCAGGGACATTACGATGCCACTACC
                                                                                                                                           GGGCCGCGTGGAGAGGCAGGACCTGTGGGGGGCTATCGGGCCCTGCGGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.57e-83
1265.00
96.71%
94.65%
95.47%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/09188930A
                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Skin Cells
                                                                                                                                                                                                                                                                                                                                                                                                                          1015
230
5
8
0
                                                                                                                 120
                                                                                                                                                                                                                                                                                                                       40
                                                                                       571
                                                                                                                                          511
                                                                                                                                                                                           451
                                                                                                                                                                                                                     80
                                                                                                                                                                                                                                              391
                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                               331
                                                                                                                                                                                                                                                                                                                                                 271
                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 9
LENGTH: 729
TYPE: DNA
ORGANISM: Mus musculus
US-09-336-536-9
                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
                         밁
                                              δÃ
                                                                         밁
                                                                                                 Š
                                                                                                                             밁
                                                                                                                                               Q
                                                                                                                                                                              밁
                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                  US-09-944-944-42 (1-243) x US-09-336-536-9 (1-729)
                                                                                                                                                                                                                                                                                                                                                                          Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-336-536-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: MCKAY, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 9, Applic
Patent No. 6406884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
                                                                                                                                                                                                                                                                                                                                                                                   Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         932
 101
                                                                           181
                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                   61
                                                                                                                                                      41
                                                                                                                                                                               61
                                                                                                                                                                                                       21
                                       GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                         AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                              CATGGCAGCCAAGGCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGA
                                                                                                                                          HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                              MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp 120
                                                                           GCTCCGGGAGAGAAAGGCGAGGGCGGGAGACCGGGACTACCTGGCCCACGTGGGGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GICTICGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGGCCAGCCTACAGTTTGATCTTGTCAAAAATGGCCCAATCCATAGCTTCTTTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAAGTTCACCTGCCAAGTGCCTGGTGTCTACTTTGCTGTCCATGCCATGCCACTGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/09336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTTTTGGGGGGGTGGCCAAAGCCAGCCTCGCTCTCAGGGGGTGCGATGGTGAGGCTAGAA
                                                                                                                                                                                                                                                                                                                       3.43e-83
1258.00
96.30%
93.83%
94.94%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND USES
                                                                                                                                                                                                                                                                                                          729
228
6
0
                                                                          240
                                                                                                   80
                                                                                                                             180
                                                                                                                                                      60
                                                                                                                                                                               120
                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          931
```

õ

g 29 밁 QΥ 밁 δÃ 밁 Qy Ş

20

Ωy

Ş

```
Alignment
Pred. No.:
                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                         ; ORGANISM: Mus
US-09-336-536-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
US-09-336-536-8
                                                      В
                                                                          Qy
                                                                                                  B. 양
                                                                                                                                           US-09-944-944-42 (1-243) x US-09-336-536-8 (1-1263)
                                                                                                                                                                                                               Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유 성 유 상
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 8, Application US/09336536
Patent No. 6406884
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                    SOFTWARE: I
                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEO ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Leiby, K.
APPLICANT: MCKAY, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                              LENGTH: 12
TYPE: DNA
                                                                                                                                                                                                                          No.:
                                                                                                                                                                                                                                     Scores:
                                                                                                   135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                        195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                  41
                                                                            21
                                                                                                                                                                                                                                                                                          1263
                                                                                                                        _
                                                      MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
          ATGAGGCCACTTCTTGCCTTCTGGGTCTGGTGTCAGGCTCTCCTCCTCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCTTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGAGGACCAGGTGGGGTGCAGGGGGGGGGGGGGTGATTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATTTTGGGGGGGTGCCCAAGCCAGCCTCGCTCTCAGGGGGTGCGATGGTAAGGCTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             musculus
                                                                                                                                                                            6.51e-83
1258.00
96.30%
93.83%
94.94%
                                                                                                                                                                Conservative: Mismatches: Indels: Gaps:
                                                                                                                                                                                                            Length: Matches:
                                                                                                                                                                                                                                                                                                                                                                     USES
                                                                                                                                                                1263
228
6
9
0
            314
                                60
                                                                           40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       140
                                                     254
                                                                                                 194
                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/140,80
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION UMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.9
SEQ ID NO 10
SEQ ID NO 10
SEQ ID NO 19
                              Percent Similarity:
Best Local Similari
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                          ; OTHER INFORMATION:
; OTHER INFORMATION:
US-09-140-804-10
                                                                                                                                                                                                                                                                                                                                              RESULT 8
US-09-140-804-10
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ğ
US-09-944-944-42 (1-243) x US-09-140-804-10 (1-729)
                       BB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δõ
                                                                   Score:
                                                                            Pred. No.:
                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                        Sequence 10, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                 APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                                                           FEATURE:
                                                                                                                                                     ORGANISM: Artificial
                                                                                                                                                                 TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      555
                                                                                                                                                                                                                                                                                                                                                                                855
                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                          795
                                                                                                                                                                                                                                                                                                                                                                                                                                                221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                          Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                           ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCTTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                          ATCAAGACAGACAGTACCTTCTCTGGATTTCTCGTCTATTCTGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                      IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTGAGGACCAGGTGTGGGTGCAGGTGGGCGTGGTTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAAGTTCACCTGCCAAGTGCCTGGCGTCTACTACTTTGCTGTGCACGCCACTGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACACCCCTACCTTTCGACCGTGTGCTGCTAAATGAGCAGGGCCATTACGACCCCACTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCCCACGATCAGCCTTCAGTGCCAAGCGATCCGAGAGCCGGGTACCTCCGCCAGCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGCCGCGTGGAGAGGCAGGGCCCATGGGGGCCTATCGGGCCTGCGGGGGAGTGCTCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                    Degenerate nucleotide polypeptide of SEQ ID
                     9.98e-70
1072.00
78.60%
78.60%
80.91%
                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                      US/09/140,804
                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                     Gaps: .
                                                                                                                                                                                                  3.0
                                                                                                                     sequence encoding the NO:2.
                   729
191
0
52
0
```

240 794 220 734 200 674 180

160

554

614

140 494 434 100 374

120

zsig39

```
US-09-336-536-74
                                                                                                                 GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: MCKBY, C.
APPLICANT: MCKBY, C.
APPLICANT: BOSSONE, S.
APPLICANT: BOSSONE, S.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES
TITLE REFERENCE: 7853-144
CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
                                                                                    SOFTWARE: P.
SEQ ID NO 74
                                                                                                                                                                                                                                                                          Sequence 74, Application Patent No. 6406884
                                                   LENGTH: 60
TYPE: DNA
   NAME/KEY: modified_base
                   FEATURE:
                                   ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                    601
                                                                                                  PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                               GTNTTYGCN
                                                                                                                                                                                                                                                                                                                                                                                             ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCNCCNYTNCCNTTYGAYMGNGTNYTNGTNAAYGARCARGGNCAYTAYGAYGCNGTNACN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCNCCNMGNWSNGCNTTYWSNGCNAARMGNWSNGARWSNMGNGTNCCNCCNCCNWSNGAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyProArgGlyGluAlaGlyProAlaGlyProThrglyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCNCCNGGNGARAARGGNGARGGNGGNMGNCCNGGNYTNCCNGGNCCNMGNGGNGAYCCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                      IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGNAARTTYACNTGYCARGTNCCNGGNGTNTAYTAYTTYGCNGTNCAYGCNACNGTNTAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGNCCNMGNGGNGARGCNGGNCCNGCNGGNCCNACNGGNCCNGCNGGNGARTGYWSNGTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAYGGNWSNCARGGNYTNCCNGGNMGNGAYGGNMGNGAYGGNMGNGAYGGNGCNCCNGGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGNGCNWSNYTNCARTTYGAYYTNGTNAARAAYGGNGARWSNATHGCNWSNTTYTTYCAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAYAAYAARATHCCNWSNYTNTGYCCNGGNCAYCCNGGNYTNCCNGGNACNCCNGGNCAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGMGNCCNYTNYTNGTNYTNYTNYTNYTNGGNYTNGCNGCNGGNWSNCCNCCNYTNGAY
                                                                                                                                                                                                                                                                                                                                                                                                                                ATHAARACNGAYWSNACNTTYWSNGGNTTYYTNGTNTAYWSNGAYTGGCAYWSNWSNCCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTYTTYGGNGGNTGGCCNAARCCNGCNWSNYTNWSNGGNGGNGCNATGGTNMGNYTNGAR
                                                                                                                                                                                                                                                                                              US/09336536
                                                                                                                                                                                         THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
US-08-463-911-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     믕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Scherer, phil
APPLICANT: LOdish, Harve
TITLE OF INVENTION: A NO
TITLE OF INVENTION: EXCI-
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
TELEFAX: (617) 861-954
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                             REFERENCE/DOCKET NUMBER: WHI95-05
TELECOMMUNICATION INFORMATION:
TELECHONE: (617) 861-6240
                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                    CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                 NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,
                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                             CITY: Lexington
STATE: Massachu
                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                          STREET:
                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                            02173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5869330
                                                                                                                                                                                                                                                                                                                                            Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application
                                                                                                                                                                                                                                                                                                                                                                        E: Hamilton, Brook,
Two Militia Drive
                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                        Floppy disk
                                 861-9540
                                                                                                                                                                                                                                                                                                                                                                                                                                                           r, Philipp E.
Harvey F.
A NOVEL SERUM I
                                                                                                                                                                                                                                                                                                                                                                                                                                EXCLUSIVELY
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/08463911
```

. E

Smith

& Reynolds,

N

ADIPOCYTES

PROTEIN PRODUCED

밁 δã 밁 ð 밁 S 밁 Ş ₽ δÃ 밁 δÃ В S 밁 Š 밁 δÃ 밁 Š 8 δÃ 밁 Qy В Š

RESULT

US/08/463,911

Version

32,227

```
; LOCATION: all "n" F; OTHER INFORMATION: US-09-336-536-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-42 (1-243) x US-09-336-536-74 (1-601)
                                                                                                                                                                                                                                                     383 CACGGCAGCCAAGGCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGA
                                                                                                    GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                  MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
||||||||||||
ATGAGGCCACTTCTTGCCCTGCTGCTTCTGGGTCTGGCATCAGGCTCTCCTCCTCCTCTGGAC
CC-CCACGATCAGC-TTCAGTGCCAAGCGATCAGAAAGC
                 ProProArgSerAlaPheSerAlaLysArgSerGluSer 113
                                                                                                                                                                                       AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                           HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                      GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTCCCAGGCACACCAGGCCAC
                                                                                                                                                                                                                                                                                                                                                         AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 40
                                                                                GGGCCGCGTGGAGAGGCAGGACCTGTGGGGGGCTATCGGGCCTGGNGGGGAATGCTCGGTG
                                                                                                                                                                 GCTCCGGGAGAGAAAGGCGAGGGCGGGAGACCGGGACTACCTGGGCCACGTNGGGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           positions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n=a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.45e-31
535.50
92.04%
90.27%
40.42%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       c, g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
102
2
9
599
```

322 20

```
US-09-944-944-42 (1-243) x US-08-463-911-1 (1-1276)
                                                                                                                                                                                                                                                                                                                                                 511 AACATTCCGGGACTCTACTACTTCTCTTACCACATCACGGTGTACATGAAAGATGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         115 ACTGAAGAGCTAGCTCCTGCTTTGGTCCCTCCACCCAAGGGAACTTGTGCAGGTTGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86 AlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerValProProArgSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MetArgProLeuLeuValLeuLeuLeu---GlyLeuAlaAlaGlySerProProLeu
                                                                                                                                                                                                                                                                                                                                                                          GlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyrArgAlaSerLeuGln
                                                                                                                                                       TrpValGlnVal---GlyValGlyAspTyrIleGlyIleTyrAlaSerIleLysThrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                            ACTAAGATCTTCTACAACCAACAGAATCATTATGACGGCAGCACTGGCAAGTTCTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGGAACCCCTGGCAGGAAAGGAGCCTGGAGAAGCCGCTTATATGTATCGCTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProGlyThrProGlyHisHisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :::::: ||||||| ||||||:::|||
TTGCAAGCTCTCCTGTTCCTCTAATCCTGCCCAGTCATGCCGAAGATGACGTTACTACA 114
                                       SerThrPheSerGlyPheLeuValTyrSerAsp---
                                                                                                                 TGGCTCCAGGTGTATGGGGATGGGGACCACAATGGACTCTATGCAGATAACGTCAACGAC
                                                                                                                                                                                             AAGAATGTGGACCAGGCCTCTGGCTCTGTGCTCCATCTGGAGGTGGGAGACCAAGTC
                                                                                                                                                                                                                                 ProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGluProGluAspGlnVal 205
                                                                                                                                                                                                                                                                       GTGAGCCTCTTCAAGAAGGACAAGGCCGTTCTCTTCACCTACGACCAGTATCAGGAA---
                                                                                                                                                                                                                                                                                                           PheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGlnPhePheGlyGlyTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThrGlyLysPheThrCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCAGTGTG ---GGGCTGGAGACCCGCGTCACTGTTCCC ---AATGTACCCATTCGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PheSerAlaLysArgSerGluSerArgValProProProSerAspAlaProLeuProPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTCCTAAGGGTGAGACAGGAGATGTTGGAATGACAGGAGCTGAAGGGCCCACGGGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------GGCACTCCTGGAGAGAGGGAGAAAGGAGATGCAGGTCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgAspGlyAlaProGlyAlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGGCATCCCAGGACATCCTGGCCACAATGGCACACCAGGCCGTGATGGCAGAGAT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AspAspAsnLysIleProSerLeuCysProGlyHisProGly-----Leu
   -TrpHisSerSerProValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
     243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125
                                                                                                                                                         224
                                                                                                                                                                                             687
                                                                                                                                                                                                                                                                                                                                                   570
                                                                                                                                                                                                                                                                                                                                                                                      165
                                                                                                                                                                                                                                                                                                                                                                                                                            510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           174
                                                                                                                   747
                                                                                                                                                                                                                                                                         627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54
                                 δõ
                                                                           밁
                                                                                                               80
                                                                                                                                                       밁
                                                                                                                                                                                     γ
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
;
;
;
LOCATION:
US-08-463-911-6
                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
US-08-463-911-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                           US-09-944-944-42 (1-243) x US-08-463-911-6 (1-1313)
                                                                                                                                                                                                                                                                                                                                                                 Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 6, Application Patent No. 5869330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Schere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (617) 861-9540 INFORMATION FOR SEQ ID NO: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: WHI:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                            No . :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Hamilton, Brook, STREET: Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH:
                                                                                                                                                         112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67
                                                                                                                                                                                           18 ProLeuAspAspAsnLysIleProSerLeuCysProGlyHis----------
                                                                                                                                                                                                                                                                     1 MetArgProLeuLeu------ValLeuLeuLeuLeuGlyLeuAlaAlaGlySerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lexington
CAAGGGCCCGGAGTCCTGCCTTCCCCTGCCCAAGGGGGCCTGCACAGGCTGGATGGCGGGC
                                                                                                                                                                                                                                   CTCAGGATGCTGTTGCTGGGAGCTGTTCTACTGCTATTAGCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lodish,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scherer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
73..804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                   3.86e-23
432.50
50.72%
40.22%
32.64%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Harvey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EXCLUSIVELY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Philipp E.

Harvey F.

A NOVEL SERUM PROTEIN PRODUCED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US/08463911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/08/463,911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WHI95-05
                                                                                                                                                       Smith & Reynolds,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ä
                                                                                                                                                                                                                                                                                                                                                                   Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADIPOCYTES
                                                                                                                 -LeuProGly
```

망

δÃ 밁 Š 밁

277

Š

Š

55

232

75

밁 QV 밁 δÃ

20

멍 Q

Query

Match:

Percent Similarity: Best Local Similarity:

2.08e-23 436.00 50.73% 38.32% 32.91%

Alignment Scores: US-08-463-911-1

No.:

FEATURE MOLECULE TYPE:

STRANDEDNESS: single TOPOLOGY: linear

DNA (genomic)

nucleic acid

1276 base pairs

LENGTH:

NAME/KEY:

46..786

δã 밁 Š 밁 Ωy 밁 Š 맑

166

146 451 126 397 106 337

628 186

δõ 밁 ð 밁 õ 밁

249

198 36 31

17 111

748

QΥ В Ş 뮵 Š

```
Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
US-09-140-804-9
                                         US-09-944-944-42 (1-243) x US-09-140-804-9 (1-4517)
                                                                              Query Match:
DB:
                                                                                                                                                                       Alignment Scores: Pred. No.:
                                                                                                                                                                                                                           US-09-140-804-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9, Application US/09140804 Patent No. 6197930 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                  SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: HOMO
                                                                                                                                                                                                                                                                              CENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57
                                                                                                                                                                                                                                                                              4517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetArgProLeuLeu--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValGlnVal---GlyValGlyAspTyrIleGlyIleTyrAlaSerIleLysThrAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCAGGCC-----TCCGGCTCTGTGCTCCTGCATCTGGAGGTGGGCGACCAAGTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGluProGluAspGlnValTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTGGGCTGTACTATTGCCTACCACATCACAGTCTATATGAAGGATGTGAAGGTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCTTCTACAATCAGCAAAACCACTATGATGGCTCCACTGGTAAATTCCACTGCAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ValLeuValAsnGluGlnGlyHisTyrAspAlaValThrGlyLysPheThrCysGlnVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProAlaGlyProThrGlyProAlaGlyGluCysSerValProProArgSerAlaPheSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCAGGTGTATGGGGAAGGAGAGCGTAATGGACTCTATGCTGATAATGACAATGACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTTCAAGAAGGACAAGGCTATGCTCTTCACCTATGATCAGTACCAGGAAAATAATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuValLysAsnGlyGluSer---IleAlaSerPhePheGlnPhePheGlyGlyTrpPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             {\tt ProGlyValTyrTyrPheAlaValHisAlaThrValTyrArgAlaSerLeuGlnPheAsp}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTG----GGATTGGAGACTTACGTTACTATCCCC----AACATGCCCATTCGCTTTACCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaLysArgSerGluSerArgValProProProSerAspAlaProLeuProPheAspArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCCAAGGCAGGAAAGGAGAACCTGGAGAAGGTGCCTATGTATACCGCTCAGCATTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGGGAGACATCGGTGAAACCGGAGTACCCGGGGGCTGAAGGTCCCCGAGGCTTTCCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgGlyAsp-----
                                                                                          1.62e-22
432.50
50.72%
.40.22%
.32.64%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----ProGlyProArgGlyGluAlaGly

    ValLeuLeuLeuGlyLeuAlaAlaGlySerPro

                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                            HOMOLOGS
                                                                           4517
1111
29
75
61
11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               167
       17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       76
GENERAL INFORMATION:
APPLICANT: Watson, James D.
APPLICANT: Strachan, Lorna
APPLICANT: Strachan, Lorna
APPLICANT: Strachan, Matthew
APPLICANT: Onrust, Rene
APPLICANT: Murison, James Greg
TITLE OF INVENTION: Compositions Isolated Fro
TITLE OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000.1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT APPLICATION NUMBER: US/09/188,930A
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 217
                                                                                                                                                                                                                                                                                             RESULT 13
US-09-188-930-217
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ŋ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                     Sequence 217, App
Patent No. 61505
                                                                                                                                                                                                                                                                                                                                                                                     226
                                                                                                                                                                                                                                                                                                                                                                                                                         663
                                                                                                                                                                                                                                                                                                                                                                                                                                                            207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        315
                                                                                                                                                                                                                                                                                                                                                   723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                 ThrPheSerGlyPheLeuValTyrSerAspTrpH1sSerSerProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                             ValGlnVal---GlyValGlyAspTyrIleGlyIleTyrAlaSerIleLysThrAspSer 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValLeuValAsnGluGlnGlyHisTyrAspAlaValThrGlyLysPheThrCysGlnVal 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrProGlyHisHisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCAGGATGCTGTTGCTGGGAGCTGTTCTACTGCTATTAGCTCTG----
                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCAGGTGTATGGGGAAGGAGAGCGTAATGGACTCTATGCTGATAATGACAATGACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGluProGluAspGlnValTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGGGCTGTACTACTTTGCCTACCACATCACAGTCTATATGAAGGATGTGAAGGTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProGlyValTyrTyrPheAlaValHisAlaThrValTyrArgAlaSerLeuGlnPheAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -------GGCACCCCTGGTGAGAAGGGTGAGAAAGGAGATCCAGGTCTTATTGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAlaProGlyAlaProGlyGluLySGlyGluGlyGlyArgProGlyLeuProGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCAGGCC----TCCGGCTCTGTGCTCCTGCATCTGGAGGTGGGCGACCAAGTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTTCAAGAAGGACAAGGCTATGCTCTTCACCTATGATCAGTACCAGGAAAATAATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuValLysAsnGlyGluSer---IleAlaSerPhePheGlnPhePheGlyGlyTrpPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCTTCTACAATCAGCAAAACCACTATGATGGCTCCACTGGTAAATTCCACTGCAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaLysArgSerGluSerArgValProProProSerAspAlaProLeuProPheAspArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCCAAGGCAGGAAAGGAGCCTGGAGAAGGTGCCTATGTATACCGCTCAGCATTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProAlaGlyProThrGlyProAlaGlyGluCysSerValProProArgSerAlaPheSer 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGGGAGACATCGGTGAAACCGGAGTACCCGGGGCTGAAGGTCCCCGAGGCTTTCCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgGlyAsp------ProGlyProArgGlyGluAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCCCAGGGCATCCGGGCCATAATGGGGCCCCAGGCCGTGATGGCAGAGAT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGGGCCCGGAGTCCTGCCTTCCCCTGCCCAAGGGGGCCTGCACAGGTTGGATGGCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----ProGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTG----GGATTGGAGACTTACGTTACTATCCCC----AACATGCCCATTCGCTTTACCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProLeuAspAspAsnLysIleProSerLeuCysProGlyHis----
                                                                                                                                                                                                                                                                            Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----CCCGGGCATGACCAGGAAACCACGACT
                                                                                                                                                                                                                                                                            US/09188930A
                                                                                                                                 Isolated From
                                                                                                              Use
                                                                                                                                 Skin
                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -LeuProGly
```

548 167 488

722

662 206 809 186 428 127 374

314 87 254 203 56 152 36 92 31 65

76

밁 δ 밁 Š B QΥ Вb Š 밁 Š 밁 δ 밁 54 B

Ş

```
밁
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                      Ωy
                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Rat
US-09-188-930-217
                                                         Š
                                                                                   B
                                                                                                         Q
                                                                                                                                 В
                                                                                                                                                       Qy
                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                    δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
RESULT 14
US-09-227-357-51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-42 (1-243) x US-09-188-930-217 (1-1107)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1107
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            No . :
                                    1002
                                                                                  942
                                                                                                                                  882
                                                                                                                                                           195
                                                                                                                                                                                   828
                                                                                                                                                                                                           175
                                                                                                                                                                                                                                                                                708
                                                                                                                                                                                                                                                                                                      135
                                                                                                                                                                                                                                                                                                                               648
                                                                                                                                                                                                                                                                                                                                                                               588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              468
                                                           234
                                                                                                                                                                                                                                 768
                                                                                                                                                                                                                                                         155
                                                                                                                                                                                                                                                                                                                                                       122
                                                                                                                                                                                                                                                                                                                                                                                                    117
                                                                                                                                                                                                                                                                                                                                                                                                                              528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            267
                                                                                                                                                                                                                                                                                                                                                                                                                                                      97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 ProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAspAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTGGGGCCATTGGGAGAGCGGGTCCTCGAGGACCCAAGGGGGTCAGTGGTACCCCCGGG
                                    GCTGAT 1007
                                                          SerAsp 235
                                                                                                                                               AlaMetValArgLeuGluProGluAspGlnValTrpValGlnValGlyValGlyAspTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                GluCysSerValProProArgSerAlaPheSerAlaLysArgSerGluSerArgValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCAACTGGTGTGCAGTCTGCCTGGT----
                                                                                              ACCATCCTAGCTCTCAAGGAGGGTGATGAAGTCTGGTTACAGATTTTCTACTCGGAGCAG
                                                                                                                                                                               CGCATTCGGACTTTTGACGCCAACACCGGCAACCACGACGTGGCC-----TCGGGCTCC
                                                                                                                                                                                                       IleAlaSerPhePheGlnPhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGly
                                                                                                                                                                                                                               TATGACATTACGCTGGCCAACAAACACCTGGCCATCGGCCTAGTGCACAATGGCCAGTAC
                                                                                                                                                                                                                                                     ValHisAlaThrValTyrArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSer
                                                                                                                                                                                                                                                                             CACTACAATGCATCCAGTGGCAAGTTCGTCTGCAGCGTGCCAGGGATCTATTACTTTACC
                                                                                                                                                                                                                                                                                            H1sTyrAspAlaValThrGlyLysPheThrCysGlnValProGlyValTyrTyrPheAla
                                                                                                                                                                                                                                                                                                                            GGCCCCTGTAGCTGCGGCAGTAGCCGAGCCAAGTCGGCCTTTTCGGTGGCCGGTAACCAAG
                                                                                                                                                                                                                                                                                                                                                                                                    ProProSerAspAla--
                                                                                                                                                                                                                                                                                                                                                                                                                           AAACATGGTATACCGGGCAAGAAGGGGACCTAAGGGCAAGAAAGGGGGAACCTGGGCTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGlyProArgGlyGluAlaGlyProAlaGlyPro-----ThrGlyProAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGAAGAAGGTCCACCTGGCAGGACAGGCAACCGAGGAAAACAAGGACCAAAGGGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGluLysGlyGluGlyGlyArgPro-----GlyLeuProGlyProArgGlyAsp
||||||:::|||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerGlnGlyLeuProGlyArgAspGlyArgAspGlyAlaProGlyAlaPro
                                                                                  AATGGACTCTTCTACGACCCTTATTGGACCGACAGCCTGTTCACCGGCTTCCTCATCTAC
                                                                                                                                                                                                                                                                                                                                                    -----ProLeuProPheAspArgValLeuValAsnGluGlnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8.42e~21
399.00
48.09%
35.88%
30.11%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative: Mismatches: Indels:
                                                                                  1001
                                                                                                        233
                                                                                                                                941
                                                                                                                                                                                                                                                      174
                                                                                                                                                                                                                                                                                                    154
                                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                                                             587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            467
                                                                                                                                                       214
                                                                                                                                                                                881
                                                                                                                                                                                                        194
                                                                                                                                                                                                                               827
                                                                                                                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                                                                                                    134
                                                                                                                                                                                                                                                                                                                                                                                                                                                    116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  42
                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         293
```

```
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 51, Application US/09227357 Patent No. 6342581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
                                                         EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EARLIER
EARLIER
                                                                                                                                                                EARLIER
EARLIER
                                                                                                                                                                                                                                                                     EARLIER
EARLIER
                                                                                                                                    EARLIER
                                                                                                                                                                                              EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                           EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                      EARLIER
EARLIER
                                                                                                                                                                                                                             EARLIER
                                                                                                                                                                                                                                           EARLIER
                                                                                                                                                                                                                                                                                                                                 EARLIER
                                                                                                                                                                                                                                                                                                                                                                                         EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                    EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EARLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EARLIER
                                                                                                                                                                                                                                                                                                     PARLIER
                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/
FILING DATE: 1997-08-18
APPLICATION NUMBER: 60/
                                                           APPLICATION NUMBER: 60/
FILING DATE: 1997-09-12
                                                                                        APPLICATION NUMBER: 60/
FILING DATE: 1997-08-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/051,930 FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/051,931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/052,793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/051,926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-07-07
APPLICATION NUMBER: 60 FILING DATE: 1997-09-
                             APPLICATION NUMBER: 60/
FILING DATE: 1997-09-12
                                                                                                                                                    FILING DATE:
                                                                                                                                                                FILING DATE: 1997-0 APPLICATION NUMBER:
                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/
FILING DATE: 1997-08-18
                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/
FILING DATE: 1997-08-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1997-07
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/051,932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/051,925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US98/13684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/227,357
                                                                                                                      FILING DATE:
                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                            APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1997-08-18
                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/055,722
                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/051,918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1997-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/052,732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 1999-01-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             et
                                                                                                                                                                                                                                                                                                                                                                           NUMBER:
                                                                                                                                                                                                                                         1997-08-18
                                                                                                                                                                                                                                                                                                                              1997-08-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1997-07-08
                                                                                                                                                    1997-08-1
                                                                                                                                                                                                             1997-08-18
                                                                                                                                                                                                                                                                                                                                                           1997-08-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1997-07-08
                                                                                                                      1997-08-18
                                                                                                                                                                              1997-08-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human Secreted Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/051,928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60/051,919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60/052,795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60/052,733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/051,929
                                                                                                                                                                                                                          60/055,964
                                                                                                                                                                                                                                                      60/055,947
                                                                                                                                                                                                                                                                                                                                                                        60/055,948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60/051,920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60/051,916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60/052,803
                                           60/058,664
                                                                          60/058,785
                                                                                                      60/055,954
                                                                                                                                    60/055,984
                                                                                                                                                                60/055,684
                                                                                                                                                                                           60/056,360
                                                                                                                                                                                                                                                                                     60/055,950
                                                                                                                                                                                                                                                                                                                 60/055,953
                                                                                                                                                                                                                                                                                                                                             60/055,949
                                                                                                                                                                                                                                                                                                                                                                                                        60/055,723
```

745

```
Ş
                                           밁
                                                              δ
                                                                                             멍
                                                                                                                        Qγ
                                                                                                                                                       밁
                                                                                                                                                                         Q
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                           ₽
                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-42 (1-243) x US-09-227-357-51 (1-1333)
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-227-357-51
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF
SOFTWARE:
SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EARLIER FILING DATE: 1997-09-12
NUMBER OF SEQ ID NOS: 672
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: SITE
LOCATION: (1330)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (633)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: SITE
LOCATION: (485)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1333
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Х
О
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OCATION: (493)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ID NO 51
                                                                                                  452
                                                                                                                                                                                                              332
                                                                                                                                                                                                                                                                     272
             112 GluSerArgValProProProSerAspAlaProLeuProPheAspArgValLeuVal-As
                                         512 CCTGGAGTTTGCAGATGTGGAAGCATCGTGCTCAAATCCGCCTTTTCTGTTGGCATCACA
                                                                                                                                                      392 GACCAAGGAGAGACTGGGAAGAAAGGACCCATAGGACCAGAGGGAGAGAAAGGAGAAGTA 451
                                                                                                                                                                                                                                                                                                                           212 ATTCCTGGCTTGCCTGGACCTCCAGGGCCCCCTGGAGCAAATGGTTCCCCTGGGCCCCAT
                                                                                                                          87
                                                                                                                                                                                   67
                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                     42 GlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaPro-----
                                                                                                                                                                                                                                                                                                                                                   24 IleProSerLeu-----CysProGlyHisProGlyLeuProGlyThrProGlyHisHis
                                                                                                                          GlyProAlaGlyProThrGlyProAlaGlyGlu-----
                                                                                                                                                                              GluGlyGlyArgProGlyLeuProGlyProArgGlyAspProGlyProArgGlyGluAla
                                                                                               GGTCCAATTGGTCCTCCTGGACCAAAGGGAGACNNATGATANCTNTGGGACCCGGGGCTG
                                                                                                                                                                                                             AAGGGAACTGCAGGTTTGAGAGGTAAGACTGGACCGCTAGGTCTTGCCGGTGAGAAAGGG
                                                                                                                                                                                                                                                                    GGTCGCATCGGCCTTCCAGGAAGAGATGGTAGAGACGGCAGGAAAGGAGAAAGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (496)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (493)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (486)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      n equals a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                             1.43e-18
369.50
50.40%
39.11%
27.89%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 equals
                                                                   -Cys---SerValProProArgSerAlaPheSerAlaLysArgSer 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a,t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a,t,g,
                                                                                                                                                                                                                             -----GlyAlaProGlyGluLysGly 66
                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ဌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ဝူ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or
F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or
c
                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
= :::
131
                                           571
                                                                                               511
                                                                                                                          97
                                                                                                                                                                                86
                                                                                                                                                                                                                                                                                               59
                                                                                                                                                                                                             391
                                                                                                                                                                                                                                                                                                                         271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
US-08-383-744-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
               US-08-383-744-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1,
                                                                                                                                      TELEFAX: 215-568-3439
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                              REFERENCE/DOCKET NUMBER: UF TELECOMMUNICATION INFORMATION: TELEPHONE: 215-568-3100
                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/A SOFTWARE: Wordperfect 5.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                  CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                        FEATURE:
                                                                     MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                          NAME: DeLuca, Mark REGISTRATION NUMBER:
                                         NAME/KEY:
                                                                                  TOPOLOGY:
                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         920 TTTCTCTTATACGTTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       626 CGAGGGANAGCACTACAACCCTGCCACAGGGGAAGTTCATCTGTGCTTTCCCAGGGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION:
                                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                      Philadephia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nGluGlnGlyHisTyrAspAlaValThr-GlyLysPheThrCysGlnValPro-GlyVal 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheLeuValTyrSerAsp 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValGlyAspTyrIleGlyIleTyrAlaSerIleLys - - - ThrAspSerThrPheSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuSerGlyGlyAlaMetValArgLeuGluProGluAspGlnValTrpValGlnValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AsnGlyGluSerIleAlaSerPhePheGlnPhePheGlyGlyTrpProLysProAlaSer 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATTACTTTCTTATGATATCACATTGGCTAATAAGCATCTGGCAATCGGACTGGTACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TyrTyrPheAlaValHisAlaThrValTyrArgAlaSerLeuGlnPheAspLeuValLys 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCAGCTAC-----CCAGAANAAAGACTACCTATTATATTTAACAAGGTCCTCCTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCACAGACCAGAATGGCCTCTTCTCAGACCCAGGTTGGGCAGACAGCTTATTCTCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATGGGCAATACCGGATAAAGACCTTCGACGCCAACACAGGAAACCATGATGTGGCT---
                                                                                                                                                                                                                                                                                                                                                                                                                       PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                One Liberty Place,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCES:
                                                                                                                                                                   215-568-3439
                                                                                                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Davis, James G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Greene, Mark I.
                                                                                  both
                            331..1602
                                                                                                                                                                                                                                                                                                                                      IBM PC compatible SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Woodcock Washburn Kurtz Mackiewicz &
                                                                                                                                                                                                                                                                                                                                                                Floppy disk
                                                                      CDNA
                                                                                                double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US/08383744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Methods for Making and Using the Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Saccular collagen
                                                                                                                                                                                                                                                                                               US/08/383,744
                                                                                                                                                                                                                        33,229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          937
                                                                                                                                                                                                              UPN-2039
                                                                                                                                                                                                                                                                                                                                                                                                                                                    46th floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and Compositions
```

```
밁
                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DB:
                                                                                                                                            밁
                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δõ
Search completed: June 21, Job time : 68 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-944-944-42 (1-243) x US-08-383-744-1 (1-1839)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.:
                                                                                                                                                                                                                                                                                     1339 AACAGGCCTGTGCGTGCCCTAGTGGTTAATGGGGTACGGAAGCTGAGGACCCGGGAT 1398
                                                                      1509
                                                                                                                                          1453 ACTGACGGTGACCAGGTGTGGCTGGAGACA---CTGAGAGACTGGAATGGAGT-TACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                       1219 CTGCCTGTGAAGTTTGATAAGGTGTTTTACAACGGGGAGGGGCACTGGGACCCAACACTC 1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1159 CAGATTCGCTCTGCTTTCAGTGTGGGCCTTGTTCCCGAGCAGCAGCCTCCCCTCCGCCCAGC 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1099 GGGCTTAAAGGTGTGCGTGGGCCCAAGGGGCCCCTAAAGGCCCCACCAGGTGAGAGTGTGGAG 1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1039 GCCAGAGGGCCCCCAGGTCCTCCAGGAGGGAGGGGCATGGCAGGGTTGAGGGGGGGAGAAG 1098
                                                                                                                                                                     200 GluProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAla 219
                                                                                                                                                                                                                                     180 GlnPhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeu 199
                                                                                                                                                                                                                                                                                                             161 ArgAlaSerLeuGlnPheAspLeuValLysAsnGly---GluSerIleAlaSerPhePhe 179
                                                                                                                                                                                                                                                                                                                                                                                     141 GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101 ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          859 GGGTTAGCTGGGACAAAGGGTCTGAAAGGTGAACAGGGGCTTAAAGGCGAGTGTTTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      919 GCCGAGAAAGGTGAGCGTGGGCCCCCCTGGTTTGAGAGGTGAGATGGGATTGAATGGAACT 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      799 GGAGAGCCTGGCCTAAATGGAACTAAAGGAAGCATCGGGCGAGAGGGGGCCCATGGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51 GlyArgAspGlyArgAspGlyAlaProGlyAlaProGlyGluLysGlyGluGlyGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 33 GlyLeuProGlyThrProGlyHisHisGlySerGlnGlyLeuProGlyArg····-Asp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15 GlySerProProLeuAspAspAsnLys-----IleProSerLeuCysProGlyHisPro
                                                                TCTCTGTACGGCCAGGACATCGATCAGGCG-----TCCAACCTCGCACTGCTGCATCTG 1452
                                                                                                                                                                                                                                                                                                                                                             ACAAATTCAATGTCACCTACCCGGGGGTCTACCTATTCACTTACCACATCACCGTGCGC 1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----ArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.53e-17
351.00
46.48%
37.50%
26.49%
               2003, 18:01:14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                          1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    858
```

۲.,

THIS PAGE BLANK (USPTO)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -MODEL-frame+_p2n.model -DEV=x1h
-Q-/cgn2_l/USPFO_spool/USO994494/runat_l3062003_150050_24368/app_query.fasta_l.391
-DB-Published_Applications_NA -OFMT-fastap -SUFFIX=rnpb -MINMATCH=0.1
-LOOPEL=0 -LOOPEXT=0 -UNITS-bits -START=1 -END=-1 -MATRIX=blosum62
-TRANS=human40.cd1 -LIST-45 -DOCALICN-200 -THR_SCORE-pct -THR_MAX=100
-THR_MIN-0 -ALICN-15 -MODEL-LOCAL -OUTFMY-DC -NORM-ext -HEAPSIZE-500 -MINLEN-0
-MAXLEN-2000000000 -USER-USO94494 @CGN 1_1_156_curnat_l3062003_150050_24368
-NCPU-6 -ICPU-3 -NO_MAP -LARGEQUERY -NEG_SCORES-0 -WAIT -DSPBLOCK=100
-LONGING -DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS-1 -XGAPOP=10 -XGAPEXT=0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Run on:
                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -FGAPEXT-7 -YGAPOP-10 -YGAPEXT-0.5 -DELOP-6 -DELEXT-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic search, using frame_plus_p2n model
                                                                                Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xgapop 10.0 , )
Ygapop 10.0 , )
Fgapop 6.0 , I
Delop 6.0 , I
    100.0
100.0
100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-944-944-42
1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   June 21, 2003, 17:37:33; Search time 192 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Published_Applications_NA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1042519 seqs, 733713590 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MRPLLVLLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                     : //cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US09_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US60_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/US60_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                  Length DB
    1377
1377
1377
1377
1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xgapext
Ygapext
Fgapext
Delext
      و و و و
   US-09-944-413-41
US-09-944-403-41
US-09-944-896-41
US-09-944-944-41
                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (without alignments)
1857.213 Million cell updates/sec
 Sequence 41,
Sequence 41,
Sequence 41,
Sequence 41,
                                                                              Description
Appl
Appl
Appl
Appl
                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
US-09-
```

P 1 PORCE PO			0.
P14-413-41 P944-413-41 P944-41 P944-413-41 P944-41 P94		1325 1325 1325 1325 1325 1325 1325 1325	1325
DATE OF THE PROPERTY OF THE PR			
ion US 004Al vin vin ,David n napole f,Elle f,Elle n,Mary haudrey ,Paul ,Chris ustin Chris ary aray aray aray aray aray aray aray		1377 1377 1377 1377 1377 1377 1377 1377	1377
- 100 in		ಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀಀ	9
413 . TRANSMEMBRANE SAME 9/944,413	ALIGNMENTS	$\begin{array}{c} us-09-944-929-41 \\ us-10-123-904-329-41 \\ us-10-121-049-361 \\ us-10-121-049-361 \\ us-10-176-918-361 \\ us-10-176-918-361 \\ us-10-176-921-361 \\ us-10-140-474-361 \\ us-10-140-474-361 \\ us-10-142-413-361 \\ us-10-142-413-361 \\ us-10-142-413-361 \\ us-10-142-423-361 \\ us-10-121-050-361 \\ us-10-121-050-361 \\ us-10-121-050-361 \\ us-10-123-108-361 \\ us-10-124-822-361 \\ us-10-124-822-361 \\ us-10-124-823-361 \\ us-10-124-823-361 \\ us-10-124-833-361 \\ us-10-121-047-361 \\ us-10-123-910-361 \\ us-10-123-910-361 \\ us-10-123-908-361 \\ us-10-123-908-361$	S-09-944-907-
POLYPEPTIDES AND NUCLEIC			equence 41,

```
OR FILING DATE: February 22, 2000
OR APPLICATION NUMBER: PCT/US00/05841
OR FILING DATE: MARCh 2, 2000
OR APPLICATION NUMBER: PCT/US00/08439
OR FILING DATE: MARCh 30, 2000
OR APPLICATION NUMBER: PCT/US00/14042
OR FILING DATE: MAY 22, 2000
OR APPLICATION NUMBER: PCT/US00/20710
OR APPLICATION NUMBER: PCT/US00/20710
OR FILING DATE: July 28, 2000
OR APPLICATION NUMBER: PCT/US00/32678
OR FILING DATE: December 1, 2000
OR APPLICATION NUMBER: PCT/US01/06520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OR APPLICATION NUMBER: 60/075,945
OR FILING DATE: February 25, 1998
OR APPLICATION NUMBER: 60/112,850
OR FILING DATE: December 16, 1998
OR APPLICATION NUMBER: 60/113,296
OR FILING DATE: December 22, 1998
OR APPLICATION NUMBER: 60/146,222
OR FILING DATE: July 28, 1999
OR APPLICATION NUMBER: PCT/US98/19330
OR APPLICATION NUMBER: PCT/US98/19330
OR FILING DATE: September 16, 1998
OR FILING DATE: September 16, 1998
OR FILING DATE: September 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OR FILING DATE: December 16, 1998
OR APPLICATION NUMBER: 09/218,517
OR FILING DATE: December 22, 1998
OR APPLICATION NUMBER: 09/254,311
OR FILING DATE: MATCH 3, 1999
OR APPLICATION NUMBER: PCT/US99/12252
OR FILING DATE: June 22, 1999
OR APPLICATION NUMBER: PCT/US99/21090
OR APPLICATION NUMBER: PCT/US99/21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DR FILING DATE: February 9, 1998
R APPLICATION NUMBER: 60/074,092
DR FILING DATE: February 9, 1998
DR APPLICATION NUMBER: 60/075,945
DR FILING DATE: February 25, 1998
DR APPLICATION NUMBER: 60/112,850
DR APPLICATION NUMBER: 60/112,850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: June 22, 1999
APPLICATION NUMBER: PCT/US99/21090
FILING DATE: September 15, 1999
APPLICATION NUMBER: PCT/US99/28409
FILING DATE: No. US20020156004Alember
                                                                                                                                                                                                                                                                                                                                                      FILING DATE: December 16, 1999
APPLICATION NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020156004Alember
APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US98/25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/070,440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/069,694
FILLING DATE: December 16, 1997
APPLICATION NUMBER: 60/069,702
FILLING DATE: December 16, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: Decembe APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                      FILING DATE: February 11, 2000 APPLICATION NUMBER: PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: December1, 1999
APPLICATION NUMBER: PCT/US99/30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 09,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER: 60/069,870
December 17, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60/069,278
ber 11, 1997
60/069,425
ber 12, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              y 5, 1998
60/074,08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1, 1998
)/216,021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7069,696
16, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /069335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999
```

```
γ
                             밁
                                         δÃ
                                                         밁
                                                                   δ
                                                                                     밁
                                                                                                  δõ
                                                                                                                 밁
                                                                                                                             δã
                                                                                                                                            밁
                                                                                                                                                         Ωy
                                                                                                                                                                        밁
                                                                                                                                                                                    Š
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORGANISM: Homo
US-09-944-413-41
                                                                                                                                                                                                                                                                                                                                                                            US-09-944-944-42 (1-243) x US-09-944-413-41
                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR FILING DATE: February
NUMBER OF SEQ ID NOS: 120
SEQ ID NO 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
947
             241
                            887
                                          221
                                                         827
                                                                      201
                                                                                     767
                                                                                                   181
                                                                                                                 707
                                                                                                                                161
                                                                                                                                             647
                                                                                                                                                           141
                                                                                                                                                                         587
                                                                                                                                                                                       121
                                                                                                                                                                                                      527
                                                                                                                                                                                                                                  467
                                                                                                                                                                                                                                                                                         347
                                                                                                                                                                                                                                                                                                                     287
                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                            407
                                                                                                                                                                                                                                                                                                                                                 227
                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                      41
                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1377
                                                                                                                                                                                                                                                                                                                                                              ۳
      ValPheAla
                           ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer 220
                                                                                            PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                         ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                            GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                    AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                       GTCTTTGCT
                                                                                                                 CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                     GGGCCGCGAGGAGAGGCGGGACCCGCGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                             GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sapien
                                                                                                                                                                                                                                                                                                                                                                                               1.67e-107
1325.00
100.00%
100.00%
100.00%
            243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28,
                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                            (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                          1377
243
0
0
0
                            946
                                                                                     826
                                                                                                   200
                                                                                                                               180
                                                                                                                                            706
                                                                                                                                                           160
                                                                                                                                                                                                                                 526
                                                                                                                                                                                                                                                            466
                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                    346
                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                 766
                                                                                                                                                                                                                                                                                         406
                                                                                                                                                                                                                                                                                                                                                286
```

RESULT 2 US-09-944-403-41 ; Sequence 41, A

Application

US/09944403

```
Patent No. US20020165143A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: P2548P1C1
CURRENT APPLICATION NUMBER: US/09/944,403
CURRENT FILING DATE: 2001-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/07,411
PRIOR FILING DATE: December 3, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND TITLE OF INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Baker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                    FILING DATE: December 10, 1770
APPLICATION NUMBER: 09/218,517
APPLICATION NUMBER: 22, 1998
                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/074,092
FILING DATE: February 9, 1998
APPLICATION NUMBER: 60/075,945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/069,702 FILING DATE: December 16, 1997
                                                                                                                                                                                                                                           APPLICATION NUMBER: 6 FILING DATE: July 28,
                                                                                                                                                                                                                                                                                                                                          FILING DATE: February 25, 1998 APPLICATION NUMBER: 60/112,850
                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: February
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: January 5, 1998
APPLICATION NUMBER: 60/074,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/070,440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: December 11, 127, APPLICATION NUMBER: 60/069,278
                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                     FILING DATE: September 16, 1998 APPLICATION NUMBER: PCT/US98/25108
                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                      FILING DATE: December
                                                                                                                                                                                                                                                                                                      FILING DATE: December 16, 1998 APPLICATION NUMBER: 60/113,296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/068, FILTURE DATE: 50/068,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/069335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/069,425
                                                                    APPLICATION NUMBER:
                                                                                                                                                 APPLICATION NUMBER: 09/216,021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Roy, Margaret
Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gurney, Austin
Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Godowski, Paul
Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ferrara, Napoleone Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kevin
March 3, 1999

NUMBER: PCT/US99/12252

Time 22, 1999
                                                                                                                                                                     December
                                                                                                                                                                                                         NUMBER: PCT/US98/19330
September 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            December
                                                                                                                                                                                                                                                                  60/146,222
                                                                  09/254,311
                                                                                                                                                                                                                                                                                                                                                                                                                                             9, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /074,086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                               δÃ
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-944-944-42 (1-243) x US-09-944-403-41 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-944-403-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: HOMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US01/06520 FILING DATE: February 28, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: PCT/US00/14042 FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710 FILING DATE: July 28, 2000
APPLICATION NUMBER: PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: December 16, 1999
APPLICATION NUMBER: PCT/USOO/03565
FILING DATE: February 11, 2000
APPLICATION NUMBER: PCT/USOO/04414
FILING DATE: February 22, 2000
FILING DATE: February 22, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: PCT/US99/28301 FILING DATE: December1, 199 APPLICATION NUMBER: PCT/US99/30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/US99/28409
FILING DATE: No. US20020165143A1ember 30,
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020165143A1ember 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US99/21090 FILING DATE: September 15, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: December 1, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/US00/08439 FILING DATE: March 30, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US00/05841 FILING DATE: March 2, 2000
        141 GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                    587
                                                                                                                                                                                                                           467
                                                                                                                                                                                                                                                                                                                                                                                   347
                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                      407
                                                                                                                                                                                                                                                                                                                                                                                                                                                               287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                18
                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21 AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1377
                                                                GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                   HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                               CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                 ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                         GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                   CATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCGCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1999
```

346 60 406 80 466

526 120

646 160 40

Š В Š В 20 В Ş 밁 8

241

827 201 767 181 707 161 647

```
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/06935
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 11, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1CI SCORRENT APPLICATION NUMBER: US/09/944,896
                                                                                                                                                       APPLICATION NUMBER: 60/069,702
FILING DATE: December 16
                                                                                           APPLICATION NUMBER: 60/069, FILING DATE: December 17, 1
                                                                                                                              APPLICATION NUMBER: 60/069,870 FILING DATE: December 17, 1997
                       APPLICATION NUMBER: 60/070,440 FILING DATE: January 5, 1998
                                                                          APPLICATION NUMBER: 60/068,017
                                                                                                                                                                                                                     APPLICATION NUMBER: 60,
                                                                                                                                                                                                                                      APPLICATION NUMBER: 60, FILING DATE: December
                                                                                                                                                                                                                                                                                       FILING DATE: December 11, 1997
APPLICATION NUMBER: 60/069,425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41, Application US/09944896
b. US20020168715A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCAAGACAGACATCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Godowski, Paul
Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gurney,Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Botstein, David
                                                          December
                                                                                                                                                                                                                                                                          December
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-08-31
                                                                                                                                                                                                                  16, 1997
0/069,694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          766
                                                                                                      Qy
                                δÃ
                                                                         В
                                                                                                                                          US-09-944-944-42 (1-243) x US-09-944-896-41 (1-1377)
                                                                                                                                                                                              Query Match:
                                                                                                                                                                                                                                                                     Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo US-09-944-896-41
                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF S
SEQ ID NO 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US00/14042
FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: September 15, 1999
APPLICATION NUMBER: PCT/US99/28409
FILING DATE: No. US20020168715Alember
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020168715Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US98/19330 FILING DATE: September 16, 1998 APPLICATION NUMBER: PCT/US98/25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/USO FILING DATE: March 30, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: March 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US99/30095 FILING DATE: December 16, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: June 22, 1999
APPLICATION NUMBER: PCT/US99/21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/US99/12252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 0 FILING DATE: March 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 09/218,517 FILING DATE: December 22, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/113,296
                                                                          227
LING DATE:
                                                                                       1 MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                           1377
                                                                     DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DATE:
                                                                                                                                                                                                                                                                                                                                       Sapien
                                                                                                                                                                                                                                                                                                                                                                                                            NOS: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                July 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               December 22, 1990
NUMBER: 60/146,222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           December 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              December 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              December1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  July 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           February
                                                                                                                                                                                              1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT/US00/08439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCT/US00/05841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09/254,311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000
                                                                                                                                                                           Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1999
                                                                                                      20
```

APPLICANT: APPLICANT:

CURRENT FILING DATE:

FILING DATE:

346

APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:

APPLICANT:

Napier, Mary

APPLICANT:

PPLICANT: PPLICANT:

INFORMATION:

Kevin

```
QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮵
                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-41
                                                                                                                                                                                                                                                                                                                                   Sequence 41, Application US/09944944 Patent No. US20020173463A1
                                                                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
CURRENT APPLICATION NUMBER: US/09/944,944
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
                                                      APPLICANT: WOOD, WILLIAM
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P2548P1C1
                                                                                                               APPLICANT:
                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                       INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                          947
                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                              887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                 Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                                                                            Baker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                             Roy, Margaret
Tumas, Daniel
Wood, William
                                                                                                                                                                                                                       Ferrara, Napoleone
Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                       ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                       Napier, Mary
                                                                                                                                                                                                                                                                                Eaton, Dan
                                                                                                                                                                                                                                                                                          Botstein, David
                                                                                                                                                                                                                                                                                                          Kevin
                                                                                  POLYPEPTIDES AND
                                                                                  NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 406
                                                                                                                                                                                                                       PRIOR
                                                                                                                                                                                                                                                                                                                       OR FILLING DATE: December 22, 1998
OR APPLICATION NUMBER: 09/218,517
OR FILLING DATE: December 22, 1998
OR APPLICATION NUMBER: 09/254,311
OR FILLING DATE: MARCh 3, 1999
OR APPLICATION NUMBER: PCT/US99/12252
R FILLING DATE: June 22, 1999
A APPLICATION NUMBER: TOT/US99/12252
R FILLING DATE: June 22, 1999
A APPLICATION NUMBER: TOT/US99/12252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OR APPLICATION NUMBER: 60/113,296
OR FILING DATE: December 22, 1998
OR APPLICATION NUMBER: 60/146,222
OR FILING DATE: July 28, 1999
DR APPLICATION NUMBER: 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OR APPLICATION NUMBER: PCT/US99/21090
OR FILING DATE: September 15, 1999
OR APPLICATION NUMBER: PCT/US99/28409
OR FILING DATE: NO. US20020173463A1ember 30, 10
OR APPLICATION NUMBER: PCT/US99/28331
OR FILING DATE: NO. US20020173463A1ember 30, 10
OR APPLICATION NUMBER: PCT/US99/28301
OR APPLICATION NUMBER: PCT/US99/28301
OR FILING DATE: December1, 1999
OR FILING DATE: December1, 1999
                                                                R FILING DATE:
R APPLICATION N
R FILING DATE:
R APPLICATION N
R APPLICATION N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/069, FILING DATE: December 16 1
                                        APPLICATION | FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: July 28, 1999
APPLICATION NUMBER: PCT/US98/19330
FILING DATE: September 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/112,850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: December 18, 1 APPLICATION NUMBER: 60/070,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/068, FILING DATE: December 18, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/069,873
FILING DATE: December 17, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/069,7 FILING DATE: December 16, 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/067,411 FILING DATE: December 3, 1997 APPLICATION NUMBER: 60/069,334
            APPLICATION FILING DATE:
                                                                                                                                                                                                        APPLICATION FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: PCT/US98/25108 FILING DATE: December 1, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                       APPLICATION
                                                                                                                                                   FILING DATE:
                                                                                                                                                                              FILING
                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/216,021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/075,945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                              DATE:
                                     N NUMBER: PCT/US00/05841

TE: March 2, 2000

N NUMBER: PCT/US00/08439

TE: March 30, 2000

TE: May 22, 2000

N NUMBER: PCT/US00/14042

N NUMBER: PCT/US00/20710

N NUMBER: PCT/US00/20710
            NUMBER: PCT/US00/207.10
: July 28, 2000
NUMBER: PCT/US00/32678
: December 1, 2000
                                                                                                                                                                : February 11, 2000
NUMBER: PCT/US00/04414
                                                                                                                                                                                                        NUMBER: PCT/US99/30095
                                                                                                                                                                                             NUMBER: PCT/US00/03565
                                                                                                                                                 February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60/069335
                                                                                                                                                                                                                                                                                          1999
```

```
RESULT 5
US-09-944-907-41
; Sequence 41, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; LENGTH: 1377
; TYPE: DNA
; ORGANISM: HOMO S
US-09-944-944-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment
Pred. No.:
Score:
                                         밁
                                                    Q
                                                                        유 상 문
                                                                                                                                 δÃ
                                                                                                                                                                         Ş
                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                     Ωy
                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                         В
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                      рь
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-944-944-42 (1-243) x US-09-944-944-41 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: I
NUMBER OF SEQ ID NOS
SEQ ID NO 41
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No . .
                                          947
                                                         241
                                                                                887
                                                                                                                     827
                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                              587
                                                                                                                                                                                                                                                                                                                  527
                                                                                                                                                                                                                                                                                                                                                       467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scores:
                                                                                                 221
                                                                                                                                       201
                                                                                                                                                           767
                                                                                                                                                                              181
                                                                                                                                                                                                 707
                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                              407
                                                                                                                                                                                                                                                                                                                                                                                                                                   347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              227
                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21
                                                ValPheAla
                                                                                                                   AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                       GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H1sGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                              TTTTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCCATGGTGAGGCTGGAG
                                                                                                                                                                     PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                             GCTCCGGGAGAGAAGGCGAGGGCGGGAGCCGGGACCTGCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                       AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                   Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E: February
NOS: 120
                                                           243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.67e-107
1325.00
100.00%
100.00%
100.00%
   US/09944907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1377
243
0
0
0
                                                                                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                              140
                                                                               946
                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                            646
                                                                                                                                                                                                                                                                                                                  586
                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                        526
                                                                                                 240
                                                                                                                   988
                                                                                                                                      220
                                                                                                                                                         826
                                                                                                                                                                             200
                                                                                                                                                                                                766
                                                                                                                                                                                                                                        706
                                                                                                                                                                                                                                                                                                                                                                                             466
                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                   406
                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                                                                                                                                                                              ; SEQ ID NO 41
; LENGTH: 1377
; TYPE: DNA
; ORGANISM: Homo 9
; ORGANISM: Homo 9
                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                      밁
               ΔÃ
                                       밁
                                                       QΥ
                                                                              밁
                                                                                              Ωy
                                                                                                                   밁
                                                                                                                                    Q
                                                                                                                                                         밁
                                                                                                                                                                           δÃ
                                                                                                                                                                                                밁
                                                                                                                                                                                                                  δ
A
                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                 US-09-944-944-42 (1-243) x US-09-944-907-41 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                                                                                                   Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: SECRETED AND TRANSMEMBR.
TITLE OF INVENTION: ACIDS ENCODING THE SAM.
FILE REFERENCE: P2548PIC1
CURRENT APPLICATION NUMBER: US/09/944,907
CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
NUMBER OF SEQ ID NOS: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Publication No. US20020198147A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
   647
                                                                                                                                                                                                                                                                                                                                                                                             Scores:
                    141
                                                          121
                                                                                                101
                                                                                                                    467
                                                                                                                                                         407
                                                                                                                                                                                                 347
                                                                                                                                                                                                                                      287
                                                                                                                                                                                                                                                                            227
                                                                                                                                      81
                                                                                                                                                                             61
                                                                                                                                                                                                                   41
                                                                                                                                                                                                                                                         21
 Gerritsen, Mary
Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker, Kevin
Botstein, David
                                                                                                                              GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                    AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                          HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                 AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                 AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                       ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                GACAACAAGATCCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Roy, Margaret
Tumas, Daniel
Wood, William
                                        GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                               CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                    GGGCCGCGAGGAGGCGGGACCCGGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                           GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Napier, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                                        Sapien
                                                                                                                                                                                                                                                                                                                                   1.67e-107
1325.00
100.00%
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRANSMEMBRANE
                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                    000.0243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND
```

586

100

406

346 60

80

40

286

20

140

646

```
APPLICANT: TUMAS, DATIED

APPLICANT: WOOD, WILLIAM

TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POI

TITLE OF INVENTION: ACIDS ENCODING THE SAME

FILE REFERENCE: P2548P1C1

CURRENT APPLICATION NUMBER: US/09/944,929

CURRENT FILING DATE: 2001-08-31

PRIOR APPLICATION NUMBER: 09/866,028

PRIOR FILING DATE: 2001-05-25

NUMBER OF SEQ ID NOS: 120

SEQ ID NO 41

LENGTH: 1377

TYPE: DNA

OFFGANTSM: WOOD STATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                   Q
                                             В
                                                                  δδ
                                                                                                                          Best Local Similarity:
Query Match:
                                                                                                                                                                      Alignment : Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                        US-09-944-944-42 (1-243) x US-09-944-929-41 (1-1377)
                                                                                                                DB:
                                                                                                                                                             Score:
                                                                                                                                                                                                        US-09-944-929-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-944-929-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 41, Application US/09944929 Publication No. US20020197612A1
                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                 ORGANISM: Homo
                                                                                                                                                                                  Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        827
                                              227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                       21
 GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                         Goddard, Audrey
Godowski, Paul
                                                                                                                                                                                                                                                                                                                                                                                             Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                       Roy, Margaret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                    Napier, Mary
                                                                                                                                                                                                                 Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kevin
                                                                                                              1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                         Conservative: Mismatches: Indels:
                                                                                                              Gaps:
                                                                                                                                                         Length:
Matches:
                                                                                                                                                                                                                                                                                                                                        POLYPEPTIDES AND NUCLEIC
                                                                                                            1377
243
0
0
0
  346
                       40
                                            286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                               ρ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                           RESULT 7
US-10-028-072-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                      APPLICANT: Baker, Kevin P
APPLICANT: Beresini, Mau:
APPLICANT: DeForge, Lau:
APPLICANT: Desnoyers, Lu:
APPLICANT: Desnoyers, Lu:
APPLICANT: Gao, Wei-Qian
APPLICANT: Goddard, Audra
APPLICANT: Goddwski, Pau.
APPLICANT: Godowski, Pau.
APPLICANT: Gerney, Austii
APPLICANT: Sherwood, Stee
APPLICANT: Smith, Victor
                                                                                                                                                                                                                                                           Sequence 361, Application No. US20 GENERAL INFORMATION
TITLE OF INVENTION:
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/049911
PRIOR FILING DATE: 1997-06-18
                                                                  APPLICANT:
                                                                                                    APPLICANT:
                                                                                        APPLICANT:
                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                             947
                                                                                                                                                                                                                                                                                                                                                                        887
                                                                                                                                                                                                                                                                                                                                                                                                                     827
                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                              767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  407
                                                                                                                                                                                                                                                                                                                                                 241 ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                       PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                  Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                            GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                              ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTGCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhang
                                                                           Watanabe,Colin
Wood,William
                                                                                                 Stewart, Timothy A. Tumas, Daniel
                                                                                                                                                                                          Gao, Wei-Qiang
                                                                                                                                                                                                    Pilvaroff, Ellen
                                                                                                                                                                                                                          DeForge, Laura
                                                                                                                          Smith, Victoria
                                                                                                                                                                              Gerritsen, Mary E
                                                                                                                                                                                                                                      Beresini, Maureen
                                                                                                                                                                                                                                                                     Application US/10028072 o. US20030004311A1
                                                                                                                                                                                                                                                סי
```

826 220 886

946

160

526120586140646

706 180 766

200

100

406

60

OR APPLICATION NUMBER: 60/059352

OR FILING DATE: 1997-09-19

OR APPLICATION NUMBER: 60/059588

OR FILING DATE: 1997-09-19

OR APPLICATION NUMBER: 60/059836

OR FILING DATE: 1997-09-24

APPLICATION NUMBER: 60/0 FILING DATE: 1997-09-18 APPLICATION NUMBER: 60/059184 FILING DATE: 1997-09-17

60/059263

APPLICATION NUMBER: 60/ FILING DATE: 1997-09-17 APPLICATION NUMBER: 60/ FILING DATE: 1997-09-17

60/059122

APPLICATION NUMBER: 60 FILING DATE: 1997-09-1

60/059115 9-17

60/059113)-17

60/056974

60/059117

APPLICATION NUMBER: 60/ FILING DATE: 1997-08-26 APPLICATION NUMBER: 60/ FILING DATE: 1997-09-17

PRIOR R FILING DATE: R APPLICATION N R FILING DATE: APPLICATION NUMBER: 60/081229
FILING DATE: 1998-04-09
APPLICATION NUMBER: 60/081695
FILING DATE: 1998-04-14
APPLICATION NUMBER: 60/081817 APPLICATION NUMBER: 60 FILING DATE: 1998-05-1 APPLICATION NUMBER: 60 FILING DATE: 1998-05-1 FILING DATE: 1998-04-28 APPLICATION NUMBER: 60/083545 FILING DATE: 1998-04-29 FILING DATE: 1998-04-24 APPLICATION NUMBER: 60/ FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/081818
FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/082999 APPLICATION NUMBER: 6 FILING DATE: 1998-03-25
APPLICATION NUMBER: 60/079663 FILING DATE: 1998-03-12
APPLICATION NUMBER: 60/
FILING DATE: 1998-03-20
APPLICATION NUMBER: 60/ APPLICATION I FILING DATE: FILING DATE: APPLICATION | APPLICATION NUMBER: 60/ APPLICATION NUMBER: 60/1 FILING DATE: 1998-02-09 APPLICATION NUMBER: 60/072320 FILING DATE: 1998-01-23 APPLICATION NUMBER: 60/073612 FILING DATE: 1997-12-11
APPLICATION NUMBER: 60/
FILING DATE: 1997-12-11
APPLICATION NUMBER: 60/ APPLICATION FILING DATE: FILING DATE: APPLICATION NUMBER: FILING DATE: 1998-05-APPLICATION NUMBER: FILING DATE: 1998-05-1 APPLICATION NUMBER: FILING DATE: 1998-05-15 APPLICATION APPLICATION APPLICATION APPLICATION FILING DATE: APPLICATION NUMBER: APPLICATION NUMBER: APPLICATION NUMBER: 60/0 FILING DATE: 1998-04-09 FILING DATE: 1 APPLICATION NUMBER: FILING DATE: 1998-02-09 FILING DATE: 1998-02-04 APPLICATION NUMBER: 60/ LING DATE: 1998-05-LING DATE: ATION NUMBER: 60/ DATE: 1998-05-07 DATE: NUMBER: 60/0: 1998-05-28 NUMBER: 60/ : 1998-06-04 NUMBER: NUMBER: 60/086414 NUMBER: NUMBER: NUMBER: NUMBER: 60/088730 1998-06-10 NUMBER: 60/088741 1998-06-10 1998-05-22 1998-05-1998-05-07 .998-05-13 998-05-07 .998-03-31 60/088026 60/087106 60/086430 60/085704 60/085697 60/085579 60/085339 60/085338 60/085323 60/085149 60/084637 60/084627 60/084600 60/083322 60/081203 60/080165 60/079728 60/079294 60/078910 60/077791 60/07409: 60/074086 60/069694 60/069334

PRIOR APPLICATION NUMBER: 60
PRIOR FILING DATE: 1997-12PRIOR APPLICATION NUMBER: 60

60/069212

OR APPLICATION NUMBER: 60/066453
OR FILING DATE: 1997-11-24
OR FILING DATE: 1997-11-24
OR APPLICATION NUMBER: 60/66770
OR APPLICATION NUMBER: 60/66770
OR FILING DATE: 1997-11-24

R FILING DATE: 1997-11-12
R APPLICATION UMBER: 60/00
R FILING DATE: 1997-11-17
R FILING DATE: 1997-11-21
R FILING DATE: 1997-11-21

60/066364 60/065846 APPLICATION NUMBER: 60/063755 FILING DATE: 1997-10-17 APPLICATION NUMBER: 60/064248 FILING DATE: 1997-11-03

APPLICATION NUMBER:

60/065186

OR AFFLING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/63735
OR FILING DATE: 1997-10-29
OR AFPLICATION NUMBER: 60/63738
OR AFPLICATION NUMBER: 60/63738
OR AFFLICATION NUMBER: 40/063738

FILING DATE: 1997-10-

1997-10-29

60/063733

APPLICATION NUMBER: 60/063550 FILING DATE: 1997-10-28 APPLICATION NUMBER: 60/063561 FILING DATE: 1997-10-28 APPLICATION NUMBER: 60/063704

APPLICATION NUMBER: 60/063127 FILING DATE: 1997-10-24 APPLICATION NUMBER: 60/063327 FILING DATE: 1997-10-27

APPLICATION NUMBER: 60/063329 FILING DATE: 1997-10-27

APPLICATION NUMBER: 60/ FILING DATE: 1997-10-24 APPLICATION NUMBER: 60/ FILING DATE: 1997-10-24

APPLICATION NUMBER: 60/ FILING DATE: 1997-10-24 APPLICATION NUMBER: 60/ FILING DATE: 1997-10-31

60/063082

60/063045 60/062816 60/062814

APPLICATION NUMBER: 60/0 FILING DATE: 1997-10-17 APPLICATION NUMBER: 60/0 FILING DATE: 1997-10-17

60/062287

60/062285 60/062250

APPLICATION NUMBER: 60 FILING DATE: 1997-10-1

```
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                 Ş
                                                                                                                            밁
                                                                                                                                                Š
                                                                                                                                                                          밁
                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                      Ъ
                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                             Š
                                   日
                                                     QΥ
                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                      US-09-944-944-42 (1-243) x US-10-028-072-361 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OR APPLICATION NUMBER: 60/090863
OR FILING DATE: 1998-06-26
OR APPLICATION NUMBER: 60/091360
OR FILING DATE: 1998-07-01
OR APPLICATION NUMBER: 60/091519
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091982
OR APPLICATION NUMBER: 60/091982
OR FILING DATE: 1998-07-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OR APPLICATION NUMBER: 60/089599
OR FILING DATE: 1998-06-17
OR APPLICATION NUMBER: 60/089907
OR FILING DATE: 1998-06-18
OR APPLICATION NUMBER: 60/089947
OR FILING DATE: 1998-06-19
OR APPLICATION NUMBER: 60/090349
OR APPLICATION NUMBER: 60/090429
OR FILING DATE: 1998-06-23
OR APPLICATION NUMBER: 60/090429
OR FILING DATE: 1998-06-24
OR APPLICATION NUMBER: 60/090445
OR APPLICATION NUMBER: 60/090445
OR APPLICATION NUMBER: 60/09045
OR APPLICATION NUMBER: 60/09045
OR APPLICATION NUMBER: 60/090538
OR APPLICATION NUMBER: 60/090538
OR APPLICATION NUMBER: 60/090538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/088858
FILING DATE: 19/98-06-11
APPLICATION NUMBER: 60/089532
FILING DATE: 1998-06-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION |
FILING DATE:
                                    647
                                                          141
                                                                                587
                                                                                                       121
                                                                                                                             527
                                                                                                                                                                          467
                                                                                                                                                                                                                       407
                                                                                                                                                                                                                                                                    347
                                                                                                                                                                                                                                                                                                                287
                                                                                                                                                                                                                                                                                                                                                             227
               161
                                                                                                                                                   101
                                                                                                                                                                                                81
                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                      21
ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                   AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                              HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                       MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                            ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                  GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                    AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                           GCTCCGGGAGAGAAAGGCGAGGCCGGGAGGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1998-06-10
                                                                                                                                                                                                                                                                                                                                                                                                                                       1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60/088810
                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                             0000
                                                                                                     140
                                                                                                                                                                                              100
                                                                                                                                                                                                                                          80
              180
                                   706
                                                          160
                                                                                646
                                                                                                                            586
                                                                                                                                                   120
                                                                                                                                                                         526
                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                                                  406
                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                               346
                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                           286
                                   밁
                                                      δÃ
                                                                                                  QY
             Š
                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 8
US-10-121-049-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  γQ
                                                                                                                                                   DB:
                                                                                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                            US-10-121-049-361
                                                                                                                                                                                                                                                                                       SEQ ID NO 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 361, Appublication No.
                                                                                                                                                                                                                                                                                                                                                                   APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                LENGTH: 13
TYPE: DNA
                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                           ...
...
                                                                                227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       827
                                    287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               707
             41
                                                          21
                                                                                                                                                                                                                                                                             1377
                                                                                                     ۳
```

```
Best Local Similarity:
Query Match:
                                                                                                                                  US-09-944-944-42 (1-243) x US-10-121-049-361 (1-1377)
                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: P3330R1C17
CURRENT APPLICATION NUMBER: US/10/121,049
CURRENT FILING DATE: 2002-04-12
                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C17
                                                                                                                                                                                                                                                                       ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                Prior Application removed -
                                                                                   HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                        Zhang, Zemin
                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/10121049 o. US20030022239A1
                                                                                                                                                                                                                                                                                                                     ID NOS: 550
                                                                                                                                                                                                                                                                     Sapien
                                                                                                                                                                    1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ש
                                                                                                                                                                                                                                                                                                                               See File Wrapper
                                                                                                                                                         Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                        Length:
Matches:
                                                                                                                                                                                               Conservative:
                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                         1377
243
0
0
0
                                                                                                                                                                                                                                                                                                                                  Palm
                                                                                                                                                                                                                                                                                                                                                                                            AND NUCLEIC
                                     346
                                                             40
             60
                                                                                     286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
```

407

61

81

347

527

101

121

```
GENERAL INFORMATION:

APPLICANT: Baker, Kevin P.

APPLICANT: Beresini, Maureen

APPLICANT: Desnoyers, Luc

APPLICANT: Desnoyers, Luc

APPLICANT: Gao, Wei-Qiang

APPLICANT: Georitsen, Mary E.

APPLICANT: Godowski, Paul J.

APPLICANT: Godowski, Paul J.

APPLICANT: Gurney, Austin L.

APPLICANT: Gurney, Austin L.

APPLICANT: Sherwood, Steven

APPLICANT: Sherwood, Steven

APPLICANT: Stewart, Timothy A.

APPLICANT: Tumas, Daniel

APPLICANT: Watanabe, Colin K

APPLICANT: Wood, William

APPLICANT: Desnoy, Zemin

APPLICANT: Desnoy, Zemin

APPLICANT: APPLICANT: ACIDS ENCODING THE SAME

FILE REFERENCE: P3330R1C54

CIRBERT APPLICATION HIMBER INSCIOURS
                                                                                                                                                                                                                                                                                                                             Sequence 361, Application US/10123904 Publication No. US20030022328A1
  Prior Application removed -
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
                                                CURRENT APPLICATION NUMBER: US/10/123,904
CURRENT FILING DATE: 2002-04-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProGluAspG1nValTrpValG1nValG1yValG1yAspTyrI1eG1yI1eTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCCGGGAGAGAAAGGCGAGGCCGGGAGGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGACGGCCGCGACGGCGCGCCCCGGG
                                      See
                                     File Wrapper
                                     ဝူ
                                                                                                POLYPEPTIDES
                                                                                                AND
                                                                                                NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                                                                                                                                         946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              466
                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Si
Query Match:
DB:
                                                          RESULT 10
US-10-140-470-361
                                                                                                 밁
                                                                                                                     Š
                                                                                                                                             밁
                                                                                                                                                                δÃ
                                                                                                                                                                                            밁
                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΨ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   рь
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: DNA
; ORGANISM: Homo
US-10-123-904-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-944-944-42 (1-243) x US-10-123-904-361 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
Sequence 361, Application US/10140470
Publication No. US20030022331A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.:
                                                                                                947
                                                                                                                     241
                                                                                                                                               887
                                                                                                                                                                     221
                                                                                                                                                                                             827
                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                          647
                                                                                                                                                                                                                                                                                                                                                                                         587
                                                                                                                                                                                                                                                                                                                                                                                                                                        527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   347
                                                                                                                                                                                                                                           767
                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                          ValPheAla
                                                                                                                                                                                            GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GICTITGCT
                                                                                                                                                           IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                  AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                               ATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                         GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                955
                                                                                                                     243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1377
243
0
0
0
                                                                                                                                               946
                                                                                                                                                                     240
                                                                                                                                                                                                                                           826
                                                                                                                                                                                                                                                                                           766
                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                             886
                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                          706
                                                                                                                                                                                                                                                                                                                                                                                         646
                                                                                                                                                                                                                                                                                                                                                                                                                                        586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
```

RESULT 9 US-10-123-904-361

Ş 밁 Š 밁 Q 밁 Q B Q 밁 δÃ Вþ QΥ В Q 밁 Š 밁 γQ 밁

241

887

221

827 201 767 181 707 161 647 141 587

```
Best Local
Query Match
DB:
                                                                                                          Ş
                                                                                                                                   밁
                                                                                                                                                         Ş
                                                                                                                                                                                    밁
                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                            뫄
                                                                                                                                                                                                                                                                                               QY
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: DNA
; ORGANISM: HOMO
US~10-140-470-361
               QΥ
                                           밁
                                                                δÃ
                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-944-944-42 (1-243) x US-10-140-470-361 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C160
CURRENT APPLICATION NUMBER: US/10/140,470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prior Application removed - NUMBER OF SEQ ID NOS: 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE: 2002-05-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Мо
::
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match:
                                            647
                                                                   141
                                                                                          587
                                                                                                               121
                                                                                                                                       527
                                                                                                                                                             101
                                                                                                                                                                                    467
                                                                                                                                                                                                                                407
                                                                                                                                                                                                                                                                              347
 707
                      161
                                                                                                                                                                                                                                                                                                                            287
                                                                                                                                                                                                                                                                                                                                                                         227
                                                                                                                                                                                                        81
                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                                      21 AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                         HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                           ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                           AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
          ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                               GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                             GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                        ATGAGGCCACTCCTCGTCCTGCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGAC
                                                                                                                                                                                                                                                                                                                                                                                    MetArgProLeuIeuValLeuLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
GGGCCGCGAGGAGAGGCGGGACCCGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gao, Wei-Qiang
Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumas,Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Watanabe, Colin K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        See Palm or File
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length: Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                         1377
243
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEIC
                                                                                                              140
                                                                                                                                                                                                        100
                                                                                                                                                                                                                               466
                     180
                                           706
                                                                   160
                                                                                          646
                                                                                                                                     586
                                                                                                                                                            120
                                                                                                                                                                                   526
                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                            406
                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                          346
                                                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                                                                                                                                                                                                      286
                                                                                                                                                                                                                                                                                                                                                                                             20
```

```
밁
                     δÃ
                                              밁
                                                                 Ş
                                                                                                                          Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                         US-09-944-944-42 (1-243) x US-10-175-746-361 (1-1377)
                                                                                                                                                              Score:
                                                                                                                                                                                                         US-10-175-746-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-175-746-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                         Pred.
                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                          SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Publication No.
                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                 Prior Application removed
NUMBER OF SEQ ID NOS: 550
                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/175,746
CURRENT FILING DATE: 2002-06-19
                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Baker, Kevin
APPLICANT: Beresini, Ma
APPLICANT: DeForge, Lau
                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                   ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                         No.:
 287
                                               227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    767
                      21
                                                       1 MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhang, Zemin
                                                                                                                                                                                                                                                                                                                                                         Watanabe,Colin K
Wood,William
                                                                                                                                                                                                                                                                                                                                                                                         Stewart, Timothy A
                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                              Tumas,Daniel
                                                                                                                                                                                                                                                                                                                                                                                                      Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/10175746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US20030027270A1
                                                                                                                                                                                                                   Sapien
                                                                                                                                                                                                                                                                              removed -
                                                                                                                         1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ъ.
                                                                                                                                                                                                                                                                           See File Wrapper or
                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                     POLYPEPTIDES
                                                                                                                                                                                                                                                                              Palm
                                                                                                               1377
243
0
0
0
                                                                                                                                                                                                                                                                                                                                     AND
                                                                                                                                                                                                                                                                                                                                     NUCLEIC
 346
                      40
                                             286
                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    826
```

Ωy

41

347

```
GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Baker, Revin P.

APPLICANT: Beresini, Maureen

APPLICANT: DeForge, Laura

APPLICANT: DeForge, Laura

APPLICANT: DeForge, Luc

APPLICANT: DeForge, Luc

APPLICANT: Godowski, Paul J.

APPLICANT: Godowski, Paul J.

APPLICANT: Godowski, Paul J.

APPLICANT: Sherwood, Steven

APPLICANT: Sherwood, Steven

APPLICANT: Smith, Victoria

APPLICANT: Smith, Victoria

APPLICANT: Tumas, Daniel

APPLICANT: Watanabe, Colin K

APPLICANT: Watanabe, Colin K

APPLICANT: Wood, William

APPLICANT: Wood, William

APPLICANT: Tumas, Janiel

APPLICANT: Wood, William

APPLICANT: Watanabe, Colin K

APPLICANT: ATTICATION: ACIDS ENCODING THE SAME

FILE REFERENCE: P3330R1C382

CIMPERT ADDITCATION INTERED: INCIDING THE SAME

FILE REFERENCE: P3330R1C382
                                                                                                                                                                                                                                                                                                                                                      RESULT 12
US-10-176-918-361
               Prior Application removed -
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                              Sequence 361, Application US/10176918 Publication No. US20030027275A1
                                                            CURRENT APPLICATION NUMBER: US/10/176,918
CURRENT FILING DATE: 2002-06-20
    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                         947
                                                                                                                                                                                                                                                                                                                                                                                                                                     887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  527
                                                                                                                                                                                                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpH1sSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                               ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                              243
                                                  See
                                                File Wrapper
                                                                                                          POLYPEPTIDES
                                                 ç
                                                 Pa
                                                                                                          AND
                                                                                                          NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                   946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
RESULT 13
US-10-176-921-361
: Sequence 361, Application US/10176921
: Publication No. US20030027276A1
: GENERAL INFORMATION:
: APPLICANT: Baker, Kevin P.
: APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                          밁
                                                                                                                              Š
                                                                                                                                                     8
                                                                                                                                                                        Q
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                         γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo US-10-176-918-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No.:
                                                                                                          947
                                                                                                                              241
                                                                                                                                                      887
                                                                                                                                                                            221
                                                                                                                                                                                                    827
                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                          647
                                                                                                                                                                                                                                                                                                                                                                                       587
                                                                                                                                                                                                                                                                                                                                                                                                                                   527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                467
                                                                                                                                                                                                                                                767
                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                        ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                              243
```

당 Ω 40 AG

δõ 밁 5 B Qy

B 8

δ

밁

유 성

뭥 δÃ В Š

```
US-09-944-944-42 (1-243) x US-10-176-918-361 (1-1377)
                                                                                        IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                          ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                             AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyH1sTyrAspAlaValThr 140
                                                                                                                                                                                                                                                                                                                                      GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                    AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
ATCAAGACAGACAGCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                              CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                  GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                            GGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                        GCTCCGGGAGAGAAAGGCGAGGCCGGGAGGCCGGGACCTCGAGGGGACCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1377
243
0
0
0
                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                                                                                                                                                      406
946
                     240
                                              886
                                                                    220
                                                                                          826
                                                                                                                                       766
                                                                                                                                                                                     706
                                                                                                                                                                                                           160
                                                                                                                                                                                                                                  646
                                                                                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                                                                           526
                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 286
```

```
APPLICANT: Sherwood, Steven
APPLICANT: Sherwood, Steven
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Stevent, Timotthy A.
APPLICANT: Watanabe, Colin K
APPLICANT: Watanabe, Colin K
APPLICANT: Watanabe, Colin K
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: ACIDS ENCODING THE SAME
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C288
CURRENT FILING DATE: 2002-06-20
CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
TYPE: DNA
ORGANISM: Homo Sapien
US-10-176-921-361
                                                                                                                                                                                                                                                                                                                                                               Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                       Q
                                                                                                              2y
2y
2y
2b
                                                                                                                                                                                   Dp
Dp
                                                                                                                                                                                                                         DЬ
                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                        Ωy
 В
               QΥ
                                 P
Qy
                                                                     밁
                                                                                                                                                                                                                                                                                                                                            US-09-944-944-42 (1-243) x US-10-176-921-361 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                      647
                                                      141
                                                                           587
                                                                                             121
                                                                                                               527
                                                                                                                                                     467
                                                                                                                                                                                                                              347
                                                                                                                                                                                                                                                                    287
                                                                                                                                                                                                                                                                                                        227
 707
                   161
                                                                                                                                  101
                                                                                                                                                                                          407
                                                                                                                                                                      81
                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                      21
                                                                                                                                                  GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                             Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K
Wood, William
Wood, William
                                                                         GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                        1.67e-107
1325.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                              1377
.243
.0
0
                                                                                            140
                                                                                                                                                                      100
                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                    40
                                                       160
                                                                          646
                                                                                                               586
                                                                                                                                 120
                                                                                                                                                   526
                                                                                                                                                                                                          80
                                                                                                                                                                                                                             406
                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                   346
                                      706
                                                                                                                                                                                                                                                                                                      286
                                                                                                                                                                                                                                                                                                                         20
```

Db Oy Oy Db	us- Qy	Al Sc Sc Be Qu DB	us;			;	·· ··				٠, ۰,			US RE	ДĎ	Оу	DЬ	Qy	Db	Qy	ДD	Š
227 21 287 41 347	09-944-94	Alignment Sco Pred. No.: Score: Percent Simil Best Local Si Query Match: DB:	TYPE: DNA ORGANISM: Homo -10-137-865-361	NUMBER OF SEQ ID NO 3 LENGTH: 1	CURRENT AL	APPLICANT: TITLE OF I TITLE OF I FILE REFER	APPLICANT:	APPLICANT:	APPLICANT: APPLICANT:	APPLICANT:	APPLICANT:	APPLICANT APPLICANT	APPLICANT	SULT 14 :-10-137-865-361 Sequence 361, Applic Publication No. US20 GENERAL INFORMATION APPLICANT: Baker Ke	947	241	887	221	827	201	76	,
	4-42 (1-243) x US-10-137-865-361 (1-1377) 1 MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp	Innert Scores:	A : Homo Sapien 5-361	SEQ ID NOS: 550	R: US/10/137,865 2-05-03 - SSC Palm Cr Filo	emin SECRETED AND TRANSME ACIDS ENCODING THE OR1C154		Stewart, Timothy A. Tumas, Daniel		Goddard, Audrey Godowski, Paul J.			: Beresini, Ma : DeForge, Lau	5-361 61, Application US/10137865 n No. US20030032155A1 FORMATION:	_	1 ValPheAla 243	7 ATCAAGACAGACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA		CTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC		7 TTTTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCCATGGTGAGGCTGGAG	
.5 40 - 346 - 406	sp 20					IC											CA 946	ro 240	3C 886	er 220	4G 826	- 6

```
δ
                                                                                                                                                                                                                                                                                                                     B 64
B
                                                                                                                                                                                                                                                                                                                                                                 δ B
                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 γo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·δ
                                                                                                                                                                                                                                                            RESULT 15
US-10-140-474-361
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                Prior Application removed
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
                                                                                        APPLICANT
                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                            Sequence 361, A Publication No.
                                                                  APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C162
                                                 CURRENT APPLICATION NUMBER: US/10/140,474
CURRENT FILING DATE: 2002-05-06
                                                                                                                                                                                                                            APPLICANT:
TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                      887
                                                                                                                                                                                                                                                                                                                                                     827
                                                                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     527
                                                                                                                                                                                                                                                                                      947
                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                      767
                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                      707
                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                         DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wel-Qlang
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                    GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ното
                                                                                                                                                                                                                            Baker, Kevin P.
                                                                                                                                                                                                                                                                                      GTCTTTGCT
                                                                                                                                                                                                                                                                                                    ValPheAla
                                                                                                                                                                                                                                                                                                                      ATCAAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                              IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpH1sSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                     ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                   Watanabe,Colin K
Wood,William
                                                                                                                   Tumas, Daniel
                                                                                                                          Smith, Victoria
Stewart, Timothy A.
                                                                                                                                                                                                                    Beresini, Maureen
                                                                                                                                                                                                                                            Application US/10140474 o. US20030032156A1
                                                                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                      955
                                          •
                                         See
                                         Palm or File
                                        Wrapper
                                                                                  POLYPEPTIDES
                                                                                  AND
                                                                                  NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                                                    200
                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                                      946
                                                                                                                                                                                                                                                                                                                                                     886
                                                                                                                                                                                                                                                                                                                                                                                     826
                                                                                                                                                                                                                                                                                                                                                                                                                                                    706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                     220
                                                                                                                                                                                                                                                                                                                                                                                                                     766
                                               Search completed:
Job time : 205 sec
                                                                                                                 밁
                                                                                                                               Š
                                                                                                                                                               Ω
                                                                                                                                                                                                 ğ
                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                   δ.
                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment
Pred. No.:
                                                                                  밁
                                                                                                                                                  밁
                                                                                                                                                                                  В
                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-42 (1-243) x US-10-140-474-361 (1-1377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-140-474-361
                                                                                                                                                                                                                                                                                   587
                                                                                 947
                                                                                                 241
                                                                                                                 887
                                                                                                                                                   827
                                                                                                                                                                                                                                                    647
                                                                                                                                                                                                                                                                                                                     527
                                                                                                                                  221
                                                                                                                                                                   201
                                                                                                                                                                                   767
                                                                                                                                                                                                   181
                                                                                                                                                                                                                    707
                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                     467
                                                                                                                                                                                                                                                                                                                                                                                     407
                                                                                                                                                                                                                                                                                                                                                                                                                     347
                                                                                                                                                                                                                                                                                                                                                                                                                                                     287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      227
                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                 ed: June
secs
                                                                                                                                                                                                                            ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                             AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                             HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                  GTCTTTGCT
                                                                                                 ValPheAla
                                                                                                                                                                                    PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                    CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGCGCGCCGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                     GCTCCGGGAGAAAGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                        21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.67e-107
1325.00
100.008
100.008
100.008
                                                                                                 243
                                                         2003,
                                                         19:02:47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1377
243
0
0
0
```

826

200

946 240 886 180

706

766

160

140

646

120

586

80

406 60 346

466

40

286

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                        Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
::
  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                         408
403
397
374
366.5
363
360.5
350
314
                                                                                                                                                                                       424
418.5
417
412
411.5
410.5
                      298.5
285.5
285.5
280.5
280.5
277.5
264.5
261.5
230.5
                                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                       seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                        length:
                                                                                                                                                                                                                                                                                                                                                                                Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             June 13, 2003, 15:55:46; Search time 22 Seconds (without alignments) 458.125 Million cell updates/sec
US-09-944-944-42
1325
                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
                                                                                                                                                                                                                                                           Match
                                                                                                                                                                                                                                                                                                                                                                                                            112892 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                           Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MRPLLVLLLIGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                            SwissProt_40:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Copyright
                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                        2000000000
                                                                                                                                                                                                                                                                                                                                         n Match 0%
m Match 100%
g first 45 su
       GenCore version (c) 1993 - 2003
                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                             41476328 residues
                                                                                                                                                                                                                                                                                                                                                                                                                           Gapext 0.
CLRE_HUMAN
CLIFE MOUSE
HP25_TAMSI
HP27_TAMSI
COT3_HUMAN
HP20_TAMSI
CA13_BOVIN
CQT1_HUMAN
CQT1_HUMAN
CA13_RAT
CA13_MOUSE
                                                                               C1QB_MOUSE
C1QA_HUMAN
C1QA_MOUSE
GLIC_MOUSE
                                                                                                                                   CA18_HUMAN
                                                                                                                                                  CA18_RABIT
                                                                                                                                                                        CA1A_MOUSE
CQT2_HUMAN
                                                                                                                                                                                       CA1A_BOVIN
                                                                                                                                                                                                      CA1A_CHICK C1QC_MOUSE
                                                                                                               C1QB_RAT
                                                                                                                     C1QB_HUMAN
                                                                                                                             CA28_HUMAN
                                                                                                                                                                  C1QC_HUMAN
                                                                                                                                                                                                                                                                                                                                           summaries
                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.1.6
Compugen
              Q9bxj1
Q14050
                            Q06576
Q06577
Q9bxj4
Q06575
P04258
                                                                                                                             Q00780
P25067
                                                                                                                                                                                                                           Q60994
Q15848
                                                                  088992
                                                                                                                                                                        09bxj5
                                                                                                                                                                                                                                           Q9bxj0 homo
                                                                                        98086
                                                                                                                                                                                                              P08125
                                                                                                                                                                                                                                                          Description
                                          mus musculu
mus musculu
homo sapien
mus musculu
tamias sibi
tamias sibi
homo sapien
                                                                                                                                                 homo sapien
homo sapien
cryctolagus
lepomis mac
                                                                                                                                                                              mus musculu
bos taurus
homo sapien
mus musculu
                                                                                                                                   mus musculu
                                                                                                                                                                                                                                    mus
               homo
                             tamias sib
                                                                                                     mus musculu
                                                                                                                    homo sapien
                                                                                                                                                                                                                     homo
                                                                                               homo sapien
                                                                                                                                                                                                             gallus gall
                                                                                                                                                                                                                            homo sapien
                                   sapien
as sibi
                                                                                                                                                                                                                                    musculu
              sapien
                                                                                                                                                                                                                                          sapien
                                                                                                                                                                                                                     sapien
                                                                                                                                                                                                                                                                                                                                               CQT5_HURAN,
Q9BXJO; Q9UFX4;
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation related)
```

SEQUENCE FROM N.A.
Sheppard P.O., Humes J.M.;
"Homo sapiens complement-clq tumor necrosis factor-related "Homo sapiens complement by the EMBL/GenBank/DDBJ databases.

protein.";

Ottenwaelder B., Obermaier B., Mewes H.-W.,

Gassenhuber

SEQUENCE OF 25-243 FROM N.A.

TISSUE=Uterus;

Homo sapiens (Human). Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;

Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.

protein 5

precursor.

NCBI_TaxID=9606;

•	35 35 35 35 35 35 35 35 35 35 35 35 35 3
	222.5 221.5 221.5 221 221 220 220 219.5 219.5 219.5 219.5 219.5 219.5 219.5 217.5
	16.8 16.7 16.7 16.6 16.6 16.6 16.6
	1758 170 1019 1262 248 360 247 1466 671 1453 1516
ALIGNMENTS	CA24_CAEEL CA28_MOUSE CA16_CHICK CA13_CHICK PSPA_CAMEL PSPA_RABIT CA13_HUMAN CA11_RAT CA11_MOUSE CA11_BOVIN CA12_BOVIN
	P17140 caenorhabdi P25318 mus musculu P20785 gallus gall P12105 gallus gall P12105 gallus gall P06908 canis famil P35799 caenorhabdi P35799 caenorhabdi P32642 oryctolagus P02461 homo sapien P02454 rattus norv P11087 mus musculu P39060 homo sapien P02459 bos taurus

```
RESULT 1
CQT5_HUMAN
ID CQT5_HUMAN
AC Q9BXJO; Q9U
DT 15-JUN-2002
EWALTYOTA;
CO Mammalla;
RN [1]
RP SEQUENCE FR
RN SEQUENCE
RN SEQUENCE
RN INTERPOO; I
DR INTERPOO; I
DR INTERPOO; I
DR FAMBL; AL110
DR INTERPOO; I
DR FAMBL; AP319
DR EMBL; AP319
DR FRINTS; PRO
DR FROSTIE; PSO
RN SEQUENCE
FT CHAIN
FT DOMAIN
FT DOMAIN
FT DOMAIN
SEQUENCE
 Query Match
Best Local Similarity
Matches 243; Conser
                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                    PRINTS; PRO0007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; FALSE_NEG
                                                                                                                                                                                                                                                          Pfam; PF00386; Clq; 1. Pfam; PF01391; Collagen; 1.
                                                                                                                                                                                                                                                                                                                EMBL; AF329841; AAK17965.1; -.
EMBL; AL110261; CAB3702.1; -.
Genew; HGRC:14344; C107NF5.
InterPro; IPR001073; C1q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wiemann S.; Submitted (AUG-1999) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -1- SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN-
-1- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                               InterPro; IPR000087; Collagen.
                                                                                                                                                Signal.
1
16
   Conservative
                                                                                                30
97
                                                                           AA;
                                                                                                                                                  15
243
100.0%; S
100.0%; F
tive 0;
                                                                           25298 MW;
                                                                                    POTENTIAL.
COMPLEMENT-C1Q TUMOR N
RELATED PROTEIN 5.
COLLAGEN-LIKE.
C1Q.
 Score 1325; DB 1;
Pred. No. 1.7e-85;
Mismatches 0;
                                                                         7CCDA65CDA7EB784 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  databases
   Indels
                                    Length
                                                                                                                                                  NECROSIS
                                      243;
   0,
   Gaps
   0
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
     PSEQUENCE FROM N.A.

STRAIN-C578L/6J; PIDSUE-Heart;

X MEDLINE-21085660; PubMed-11217851;

X KAWAI J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

X Kawai J., Shinagawa A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,

X Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

X Asito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,

X Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

X Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

X Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

X Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Ouackenbush J.,

X Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Ouackenbush J.,

X Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Carninci P., de Bonaldo M.F.,
                                                                                                                                                                                                                                                                                                                                                              TISSUE-Adipocyte;
MEDLINE-96070757; PubMe
Scherer P.E., Williams
A novel serum protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APMI_MOUSE STANDARD; PRT; 247 AA. Q60994; Q62400; Q9DC66; Q1-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) Adiponectin precursor (30 kDa adipocyte complement-related (ACRP30) (Adipocyte specific protein AdipoO). APMI OR ACRESO OR ADIPOQ.
                                                                                                                                                                                  of the mouse Acrp30.";
                                                                                                                                                                                           PubMed=11162643;
Das K., Lin Y., Widen E., 'Chromosomal localization, of the mouse gene encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; C
Mammalia; Eutheria; R
                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                           "AdipoQ
                                                                                                                                                                                                                                                                                                MEDLINE=96209999;
                                                                                                                                                                                                                                                                                                             TISSUE-F
                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                         adipocytes."
                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                       .
E
                                                                                                                                                                                                                                                                Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                          Liang
Q is a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ш
                                                                                                                                                                                                                                                                is a no.
                                                                                                                                                                                                                                                                                                                      FROM
                                                                                                                                                                                                                                         FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MRPLLYLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                              Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                              novel adipose-specific gene
m. 271:10697-10703(1996).
                                                                                                                                                                                                                                                                                    9999; PubMed=8631877;
P., Spiegelman B.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                            last;
                                                                                                                                                                                                                                                                                                                      N.A.
                                                                                                                                                                                                                                                                                                                                          270:26746-26749(1995).
                                                                                                                                                                        Res.
                                                                                                                                                                                                                                                                                                                                                                                         PubMed=7592907;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata;
Rodentia;
                                                                                                                                                                                           E., Zhang Y., Scherer P.E.;
tion, expression pattern, and promoter analysis
oding adipocyte-specific secretory protein
                                                                                                                                                                                                                                                                                                                                                                 S., Fogliano M., similar to Clq, |
                                                                                                                                                                       Commun.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; | Sciurognathi; Muridae;
                                                                                                                                                                       280:1120-1129(2001).
                                                                                                                                                                                                                                                                                                                                                                  , Baldini
produced
                                                                                                                                                                                                                                                                          dysregulated in obesity.";
                                                                                                                                                                                                                                                                                                                                                                  G., Lodish Fexclusively
                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                             Lodish H.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein)
                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
               EMBL; U37222; AAA80543.1; -. EMBL; U49915; AAB60706.1; -. EMBL; U49915; AAB60706.1; -. EMBL; AF304466; AAK13417.1; -. EMBL; AF00318; BAB22597.1; -. MGD; MGI:106675; ACTP30. InterPro; IPR001073; C1q. InterPro; IPR000087; Collagen. Pfam; PF00386; C1q; 1. Pfam; PF00386; C1q; 1. Pfam; PF01391; C01PLEMNTC10. SMART; SM00110; C1Q; 1. PROSITE; PR01113; C1Q; 1.
          DOMAIN
DOMAIN
DISULFID
MOD_RES
MOD_RES
MOD_RES
                                                                                                               PROSITE;
Hormone;
                                                                                                                                                                                                                                                                                                                                           This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berg
"The
                                                                                                                                                                                                                                                                                                                      the
                                                                                          SIGNAL
                                                                                                      Polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  action
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-21372499; F
Berg A.H., Combs T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Functional annotation of
                                                                                                                                                                                                                                                                                                                    European
                                                                                                                                                                                                                                                                                                                                                                           ACTIVATED BY INSULIN. SIMILARITY: CONTAINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A.H., Combs T.P., I
adipocyte-secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             409:685-690(2001).
                                                                                                               Collagen;
            17
247
110
247
247
39
47
50
                                                                                                               Signal;
                                                                                                               Repeat; Hydroxylation; Plasma;
           C1Q.
INTERCHAIN (BY :
HYDROXYLATION ()
HYDROXYLATION ()
HYDROXYLATION ()
                                                                  POTENTIAL.
ADIPONECTIN.
COLLAGEN-LIKE.
```

Y SIMILARITY).
(BY SIMILARIT
(BY SIMILARIT
(BY SIMILARIT

Y SIMILARITY). Y SIMILARITY). Y SIMILARITY).

```
modified and this statement is not removed. entitles requires a license agreement 'con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M., Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., Lyons P., Marchionni L., Mashham J., Mazzarelli J., Mombaerts P., Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N., Nordone P., Stock, Schoenbach C., Seya T., Shibata Y., Storch K.-F., Sasaki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L. Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S., Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-21372498; PubMed-11479627; Yamauchi T., Kamon J., Waki H., Terauchi Y., Kubota Yamauchi T., Kamon J., Waki H., Teboyama-Kasaoka N., Mori Y., Ide T., Murakami K., Tsuboyama-Kasaoka N., Akanuma Y., Gavrilova O., Vinson C., Reitman M.L., F. Shudo K., Yoda M., Nakano Y., Tobe K., Nagai R., Kin Froguel P., Kadowaki T.;
entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                             EXPRESSION OF ENDOTHELIAL ADHESSION CONTROL OF FAT METABOLISM AND INSI-
SUBCULTUAR LOCATION: SECRETED IN TISSUE SPECIFICITY: SYNTHESIZED EX SECRETED IN TO SERUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Med. 7:947-953(2001).
Med. 7:947-953(2001).
FUNCTION: IMPORTANT NEGATIVE REGULATOR IN HEMATOPOIESIS AND IMMUNE SYSTEMS; MAY BE INVOLVED IN ENDING INFLAMMATORY RESPONSES THROUGH ITS INHLEHITORY FUNCTIONS. INHIBITS ENDOTHELIAL MY-KAPPAB SIGNALING THROUGH A CAMP-DEPENDENT PATHWAY. INHIBITS TNF-ALPHA-INDUCED EXPRESSION OF ENDOTHELIAL ADHESION MOLECULES. INVOLVED IN THE CYCRUTROL OF FAT METABOLISM AND INSULIN SENSITIVITY.
                                                                                                                                                                                                                                SIMILARITY: CONTAINS 1 COLLAGENOUS SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                        INDUCTION: DURING HORMONE-INDUCED
                                                                              SWISS-PROT entry is copyright. It is produced through a collable en the Swiss Institute of Bioinformatics and the EMBL outst European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fat-derived hormone adiponectin reverses insulin clated with both lipoatrophy and obesity."; med. 7:941-946(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=11479628;
T.P., Du X., Brow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Du X., Brownlee protein Acrp30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a full-length mouse
                                                                                                                                                                                                                                                                                                                                                                              IN PLASMA.
D EXCLUSIVELY
                                                                                                                                                                                                                                                                                                                           ADIPOSE
                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M., Scherer P.E.;
enhances hepatic
                           . Usage by and for http://www.isb-sib.
                                                                                                                                                                                                                                                                                                                           DIFFERENTIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA
                                                                                                                                                                                                                                                                                                                                                                                 ВУ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kimura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kagechika
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  collection.";
                                                                                                                                                                                                                                                                                                                                                                                 ADIPOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N., Ha
Ezaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S., Tomita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                            d for
                                                                                                                                                    collaboration
                                                                                                                                              outstation
                              .ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X
                                                                                       20
```

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
MOD_RES
MOD_RES
MOD_RES
VARIANT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                       01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Adiponectin precursor (30 kDa adipocyte complement-related protein)
(ACRP30) (Adipose most abundant gene transcript 1) (apM-1) (Gelatin-
                                                                                                                                                                                                                                                                                                                                                   HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONFLICT
                                                  Saito K., Tobe T., Minoshima S., Asakawa Nakano Y., Shimizu N., Tomita M.; "Organization of the gene for gelatin-bir Gene 229:67-73(1999).
                                                                                          SEQUENCE FROM N.A. MEDLINE=99196984; PubMed=10095105;
                                                                                                                      "CDNA cloning and expression of a novel adipose specific collagen-like factor, apM1 (AdiPose Most abundant Gene transcript 1)."; Biochem. Biophys. Res. Commun. 221:286-289(1996).
                                                                                                                                                                                                                                     Homo sapiens (Human)
Eukaryota; Metazoa; (
                    SEQUENCE FROM N.A.
MEDLINE=99333693; PubMed=10403784;
                                                                                                                                                        Matsubara
                                                                                                                                                               MEDLINE=96224171; PubMed=8619847; Maeda K., Okubo K., Shimomura I.,
                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                   binding
                                                                                                                                                                                                                                                                                                                               Q15848;
          Schaeffler
                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                            Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                        ing protein).
OR ACRP30 OR GBP28.
                                                                                                                                                                                                                                                                                                                                          _HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               106
                                                                                                                                                                                                                                                                                                                                                                                            235
                                                                                                                                                                                                                                                                                                                                                                                                                                                        166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FSAKRSESRYPPPSDAPLPFDRYLVNEQGHYDAVTGKFTCQVPGYYYFAVHATYYRASLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                            FDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGDYIGIYASIKTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RDGAPGAPGEKGEGGRPGLPGPRGD------PGPRGEAGPAGPTGPAGECSVPPRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MRPLLVLLLL-GLAAGSPPLDDNKIPSLCPGHPG-----LPGTPGHHGSQGLPGRDGRDG
                                                                                                                                                                                                                                                                                                                                                                                            STFTGFLLYHD
                                                                                                                                                                                                                                                                                                                                                                                                                STFSGFLVYSD
                                                                                                                                                                                                                                                                                                                                                                                                                                  VSLFKKDKAVLFTYDQYQE-KNVDQASGSVLLHLEVGDQVWLQVYGDGDHNGLYADNVND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LQALLFLLILPSHAEDDVTTTEELAPALVPPPKGTCAGWMAGIPGHPGHNGTPGRDGRD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FSV-GLETRVTVP-NVPIRFTKIFYNOONHYDGSTGKFYCNIPGLYYFSYHITVYMKDVK
                                                                                                                                                                                     ipose tissue;
A., Orso E., Pal
Schoelmerich J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65
79
98
107
113
50
74
117
148
243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTPGEKGEKGDAGLLGPKGETGDVGMTGAEGPRGFPGTPGRKGEPGEAAYMYRSA
                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65
79
98
107
113
113
114
117
1148
                                                                                                                                                                                                                            Primates;
                                                                                                                                                                                                                                     Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40.6%;
 Palitzsch K.
J., Schmitz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
M -> V.
P -> S (IN REF
A -> S (IN REF
G -> N (IN REF
Y -> F (IN REF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 433.5;
                                                           gelatin-binding
                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -> S (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        137B687D873988C4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                Funahashi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.
ດ.,
                                                                                                                                                                                                                                                                                                                                         244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REF.
          Buechler
                                                                              s.,
                                                                                                                                                                                                                                                                                                                                         Ã.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .2e-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N (BY SIMILARITY).
N (BY SIMILARITY).
N (BY SIMILARITY).
N (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                              т.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sumiya J.,
                                                           protein
                                                                                                                                                                Matsuzawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CRC64;
          .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
          Drobnik
                                                            (GBP28).";
                                                                               Yoda M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25;
          Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              165
                                                                                                                                                                                                                                                                                                                                                                                                                                  234
                                                                                                                                                                                                                                                                                                                                                                                                                                                      224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62
```

```
-I- FUNCTION: IMPORTANT NEGATIVE REGULATOR IN HEMATOPOIESIS AND IMMUNE SYSTEMS; MAY BE INVOLVED IN ENDING INFLAMMATORY RESPONSES THROUGH ITS INHIBITORY FUNCTIONS. INHIBITS ENDOTHELIAL NF KAPPAB SIGNALING THROUGH A CAMP-DEPENDENT PATHWAY. INHIBITS THE -ALPHA-INDUCED EXPRESSION OF ENDOTHELIAL ADHESION MOLECULES. INVOLVED IN THE CONTROL OF FAT METABOLISM AND INSULIN SENSITIVITY.

-I- SUBURIT: HOMOOLIGOMER (POTENTIAL).
-I- SUBCELLULAR LOCATION: SECRETED IN PLASMA.
-I- TISSUE SPECIFICITY: EXPRESSED ONLY IN THE ADIPOSE TISSUE.
-I- DISEASE: Defects in APM1 are the cause of adiponectin deficiency, resulting in very low concentration of plasma adiponectin.

Decreased adiponectin plasma levels are associated with obesity insulin resistance, and diabetes type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [4]
CHARACTERIZATION.
CHARACTERIZATION.
MEDLINE=20417747; PubMed=10961870;
Yokota T., Oritani K., Takahashi I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hara K., Boutin P., Mori Y., Tobe K., Dina C., Yasuda K., Yamauchi ? Otabe S., Okada T., Eto K., Kadowaki H., Hagura R., Akanuma Y., Yazaki Y., Nagai R., Taniyama M., Matsubara K., Yoda M., Nakano Y., Kimura S., Tomita M., Kimura S., Ito C., Froguel P., Kadowaki T.; "Genetic variation in the gene encoding adiponectin is associated with an increased risk of type 2 diabetes in the Japanese population."; Diabetes 51:536-540(2002).

Diabetes 51:536-540(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Takahashi M., Arita Y., Yamagata K., Matsukawa Y., Okutom
Horie M., Shimomura I., Hotta K., Kuriyama H., Kihara S.,
Yamashita S., Funahashi T., Matsuzawa Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               associated with both lipoatrophy Nat. Med. 7:941-946(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mori Y., Ide T., Murakami K.,
Akanuma Y., Gavrilova O., Vin:
Shudo K., Yoda M., Nakano Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-20440368; PubMed-10982546;
Ouchi N. Kihara S., Arita Y., Okamoto Y., Maeda K., Kuriyama H.,
Hotta K., Nishida M., Takahashi M., Muraguchi M., Ohmoto Y.,
Nakamura T., Yamashita S., Funahashi T., Matsuzawa Y.;
"Adiponectin, an adipocyte-derived plasma protein, inhibits
endothelial NF-kappaB signaling through a cAMP-dependent pathway.";
Circulation 102:1296-1301(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "The human apM-1, an adipocyte-specific gene linked to the family of TNF's and to genes expressed in activated T cells, is mapped to chromosome 1921.3-23, a susceptibility locus identified for familial combined hyperlipidemia (FCH).";
Blochem. Biophys. Res. Commun. 260:416-425(1999).
                                                                                    ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   adiponectin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VARIANT ADIPONECTIN DEFICIENCY CYS-112. MEDLINE-20378830; PubMed=10918532;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Adiponectin, a new member of the negatively regulates the growth functions of macrophages.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=21671103; PubMed=11812766;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANTS ARG-84; MET-117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "The fat-derived hormone adiponectin reverses i associated with both lipoatrophy and obesity.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Froguel P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yamauchi T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=21372498; PubMed=11479627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHARACTERIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BLood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Genomic structure and mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6
                                                 PHARMACEUTICAL: Adiponectin might be used diabetes type 2 and insulin resistance. SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN. SIMILARITY: CONTAINS 1 C10 DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96:1723-1732(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Obes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21372496; rusself russ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Relat. Metab. Disord.
entry is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THR-164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  I., Lo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of myelomonocytic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in adipose-specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SER-221 AND PRO-241.
It is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24:861-868(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ishikawa J., Matsuyama
enner A.J., Tomiyama Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of soluble defense collagens,
produced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kubota N., H
oka N., Ezaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kimura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 progenitors
through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Okutomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kagechika
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene,
                                                                                                                                            treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S., Tomita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nakamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>۳</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Α.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           familial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ŧ.,
```

copyright.

```
• 당
                                               δÃ
                                                                                    밁
                                                                                                             Ş
                                                                                                                                                         뭐
                                                                                                                                                                                    Ş
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 $\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
DOMAIN
DISULFID
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        between
the Euro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
EMBL;
EMBL;
MIM; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 1.
PRINTS; PR00007; COMPLEMNTC1Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hormone;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00007; COMPLE SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polymorphism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR001073; Clq.
InterPro; IPR000087; Coll
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    veen the Swiss Institute of Bioinformatics European Bioinformatics Institute. There a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; D45371; BAA08227.1; -..; AB012165; BAA86716.1; -..; AB012164; BAA86716.1; -..; AJ131460; CAB52413.1; -..; AJ131461; CAB52413.1; -..; AJ131461; CAB52413.1; -..;
                                                                                                                                                                                                                                                                                                                                                                           106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 605441;
                                                                                       163
                                                                                                                                                             105
                                                                                                                        156
                                                                                                                                                                                            96
                                                                                                                                                                                                                                                                 45
                                                                                                                                                                                                                              51
                                                                                                                                                                                                                                                                                                    7
                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                             GECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PS01113; C1Q; 1.
Collagen; Signal;
                                                                                                                                                       GEGAYYYRSAFSV-GLETYVTIP-NMPIRETKIFYNQQNHYDGSTGKFHCNIPGLYYFAY
                                                                                                                                                                                                                                GAPGRDGRD----
                                                                                                                                                                                                                                                                 GLPGRDGRDGRPGAPGEKGEGGRPGLPGPRGD-----PGPRGEAGPAGPTGPA
                                                                                                                                                                                                                                                                                                      VLLLLAL - -
                                                                                                                                                                                                                                                                                                                                     VLLLLGLAAGSPPLDDNKIPSLCPGH-----PG------LPGTPGHHGSQ
                    RNGLYADNDNDSTFTGFLLYHD
                                                     YIGIYASIKTDSTFSGFLYYSD
                                                                                    HITVYMKDVKVSLFKKDKAMLFTYDQYQENNVDQA~~SGSVLLHLEVGDQVWLQVYGEGE
                                                                                                                      HATVYRASLOFDLVKNGES-IASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                 244 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15
108
108
36
44
47
53
53
53
71
71
104
                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disease mutation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          244
244
444
444
53
62
71
104
104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164
                                                                                                                                                                                                                                                                                                                                                                                      32.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                               26414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Collagen.
                                                                                                                                                                                                                              -GTPGEKGEKGDPGLIGPKGDIGETGVPGAEGPRGFPGIQGRKGEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                 M.
                                                                                                                                                                                                                                                                                                                                                                         26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /FTId-VAR_013274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                          Score 424;
Pred. No. 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTERCHAIN (BY HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COLLAGEN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /FTId=VAR_013278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /FTId=VAR_013277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /FTId-VAR_013276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FTId-VAR_013275.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADIPONECTIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                      64D8C6C1204B1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  obesity; Diabetes
                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                    PGHDQETTTQGPGVLLPLPKGACTGWMAGIPGHPGHN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      There are no restrictions ong as its content is in
                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
.3e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y SIMILARITY).
(BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BY
(BY
(BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY).
SIMILARITY).
SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                               CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plasma;
mellitus.
                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                            244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL
                                                                                                                                                                                                                                                                                                                                                                        58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          outstation
                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                      213
                                                                                                                                                           162
                                                                                                                                                                                                                              104
                                                                                                                                                                                                                                                                 95
                                                                                                                                                                                                                                                                                                    50
                                                                                     220
```

Ø

```
CALALUTY 4
CALALUTY A
COUSTON
COLLIDA
OS HOMMO S
COLLIDA
OS EUKARRY
OC EUKARRY
OC MARRIMAL
RX MEDLIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CA1A_HUMAN STAI
Q03692;
01-NOV-1995 (Rel.
01-NOV-1997 (Rel.
16-OCT-2001 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM Beier F., Lamm Submitted (JUN
                                                                                                             Kuivaniemi H., Tromp G., Prockop D.J.;
"Mutations in fibrillar collagens (types I, II, III, and XI)
associated collagen (type IX), and network-forming collagen
cause a spectrum of diseases of bone, cartilage, and blood v
Hum. Mutat. 9:300-315(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-91243838; PubMed-2037056; Apte S., Mattel M.-G., Olsen B.R.; "Cloning of human alpha 1(X) collagen COL10A1 gene to the q21-q22 region of FEBS Lett. 282:393-396(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
Williams
                  VARIANTS SMCD ASP-598 AND PRO-614.
MEDLINE-94136476; PubMed-8304336;
Wallis G.A., Rash B., Sweetman W.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Solomon E., Grant M.E., Boot-Handford R.P.;
"The human collagen X gene. Complete primary translated chromosomal localization.";
Biochem. J. 280:617-623(1991).
                                                                                                                                                                                                                                                                                           SEQUENCE OF 547-655 FROM N.A. MEDILINE-92077285; PubMed-1743401; Reichenberger E., Aigner T., von (Reichenberger E., Aigner Studies on 'In situ hybridization studies on in fetal human cartilage."; Dev. Biol. 148:562-572(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=92267014; PubMed=1587271; Apte S.S., Seldin M.F., Hayashi M., Olsen B.R.; "Cloning of the human and mouse type X collagen gene to chromosome 10 Eur. J. Biochem. 206:217-224(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE-92109659; PubMed-1764025;
Thomas J.T., Cresswell C.J., Rash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                               REVIEW ON VARIANTS.
MEDLINE=97255959; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 561-666 FROM N.A. MEDLINE=91243838; PubMed=2037056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 52-680 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reichenberger E., Beier F., Luvalle P. Bertling W.M.;
"Genomic organization and full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Collagen alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEBS Lett.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE-93012005;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FROM N.A., Lammi M.B., 1 (JUN-1996) t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (JAN-2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 311:305-310(1992)
      Boot-Handford
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1(X)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32, Created)
35, Last sequence up
40, Last annotation
                                                                                                                                                                                                                               PubMed=9101290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PubMed=1397333;
Beier F., Luval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Von
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C.J., Rash B., Nicolai
Boot-Handford R.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
    R.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             der Mark K.;
he EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                           W.A.,
                                                                                                                                                                                                                                                                                                                                            on
                                                                                                                                                                                                                                                                                                                                                                 der Mark K.,
                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   680
                           Thomas
                                                                                                                                                                                                                                                                                                                                            Mark K., Stoeb H., Bertling W.;
expression of type X collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA and localization of human chromosome 6.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Olsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ⋧
                           J.T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jones
                           Super
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Von
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human collagen
                           X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         der Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence
                                                                                                                                                                                  XI),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mapping
                                                                                                                                      en (type X)
1 vessels.";
                           Evans
                                                                                                                                                                                  fibril-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ×.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of
                           <u>ن</u>
```

```
car in occur in type Schmid."
                                                                                                                                                                                                                                                              MEDLINE-99069781; PubMed-9852679;
Sawai H., Ida A., Nakata Y., Koyama K.;
"Novel missense mutation resulting in the substitution of tyrosine cysteine at codon 597 of the type x collagen gene associated with Schmid metaphyseal chondrodysplasia.";
J. Hum. Genet. 43:259-261(1998).
-1-FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE MINERALIZATION ZONES OF HYALINE CARTILAGE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ikegawa S., Nakamura K., Nagano A., Hac
"Mutations in the N-terminal globular c
gene (COL10A1) in patients with schmid
chondrodysplasia.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Am. J. Hum. Genet.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDILINE-96375754; PubMed-8782043; Wallis G.A., Rash B., Sykes B., Bonaventure J., Maroteaux P., Wallis G.A., Rash B., Sykes B., Bonaventure J., Maroteaux P., Zabel B., Wynne-Davies R., Grant M.E., Boot-Handford R.P.; "Mutations within the gene encoding the alpha 1 (X) chain of type collagen (COLIOAL) cause metaphyseal chondrodysplasia type Schmid not several other forms of metaphyseal chondrodysplasia."; J. Med. Genet. 33:450-457(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Mutations in three subdomains of the carboxy-terminal recollagen type X account for most of the Schmid metaphysea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to val mutation in the alpha 1(x) NCl domain resulting in Schm metaphyseal chondrodysplasia.;
J. Biol. Chem. 270:4558-4562(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Amino acid substitutions of conserved residues in the carboxyl-terminal domain of the alpha 1(X) chain of type X collag occur in two unrelated families with metaphyseal chondrodysplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Mutation of the type X collagen gene 'COL10A1' spondylometaphyseal dysplasia."; Am. J. Hum. Genet. 63:1659-1662(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VARIANTS SMD GLU-595.
MEDLINE=99057503; PubMed=9837818;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE J., Cham
Bonaventure J., Cham
Hons in three
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-95331767; PubMed-/00/000,
Romaventure J., Chaminade F., Marcteaux P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT SMCD VAL-618.
MEDLINE-95181449; PubMed-7876225;
Chan D., Cole W.G., Rogers J.G., Bateman J.F.;
"Type X collagen multimer assembly in vitro is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      McIntosh I., Abbott M.H., Warman M.L., Olsen B.R., Francomano C. "Additional mutations of type X collagen confirm COLIOA1 as the Schmid metaphyseal chondrodysplasia locus."; Hum. Mol. Genet. 3:303-307(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=97220591; PubMed=9067753; Ikegawa S. Natananananananananan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VARIANT SMCD CYS-597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARIANT SMCD PRO-600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANTS SMCD ARG-545; GLU-595; HIS-597; LYS-617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VARIANT SMCD ARG-591.
MEDLINE-94272470; PubMed-8004099;
                      SUBUNIT: HOMOTRIMER.

FYM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-x-y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS. DISEASE: DEFECTS IN COL10A1 ARE THE CAUSE OF SCHMID TYPE METAPHYSEAL CHONDRODYSPLASIA (SWCD), A DOMINANYLY INHERITED DISORDER OF THE OSSEOUS SKELETON. THE CADMINAL FEATURES OF THE PHENOTYPE ARE MILD SHORT STATURE, COXA VARA AND A WADDLING GAIT. RADIOGRAPHY USUALLY SHOWS SCLEROSIS OF THE RIBS, FLARING OF THE RADIOGRAPHY USUALLY SHOWS SCLEROSIS OF THE RIBS, FLARING OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J. Hum. Genet.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ., Nishimura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96:58-64(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9:131-135(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54:169-178(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G., Nagai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T., Hasegawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Haga N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            domain of th
d metaphyseal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nakamura
of the ty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            т.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       causes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ohashi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ARG-644 AND GLY-648
ESPECIALLY OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          type X collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Υ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in Schmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ή.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         x collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G1y618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     but.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    γď
```

```
В
                                 밁
                                                   δõ
                                                                                                 Ş
                                                                                                                                                                          Matches
                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X60382; CAA42933.1; -.
EMBL; X65120; CAA46236.1; -.
EMBL; X65568; CAA67178.1; -.
EMBL; ALL21963; CAB87590.1; -.
EMBL; S68531; AAC60615.1; -.
EMBL; X58879; CAA61281.1; -.
EMBL; X758879; CAA61221.1; -.
EMBL; X72579; CAA51170.1; -.
EMBL; X72579; CAA51170.1; JOINED.
PIR; S15826; S15826
PIR; S15826; S15826
PIR; S10086; S30086.
PIR; S10249; S18249
PIR; S12826; S21856.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genew;
MIM; 1:
MIM; 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a control between the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and formatical statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR001073; C1q
InterPro; IPR000087; Coll
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <del>:</del>
                                                                                                                                                                                   VARIANT
                                                                                                                                                                                                         VARIANI
                                                                                                                                                                                                                                VARIANI
                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                                                Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS01113; C1Q;
                                                                                                                                                                                                                                                                                                                                                                      SMART; SM00110; C1Q;
                                                                                                                                                                                                                                                                                                                                                                                 PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                      VARIANI
                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KNEES:
DISEASE: DEFECTS IN COLIOAL ARE THE CAUSE OF SPONDYLD DYSPLASIA (SMD). SMD COMPRISES A HETEROGENEOUS GROUP SKELETAL DYSPLASIAS CHARACTERIZED BY MODIFICATIONS OF VERTEBRAL BODIES OF THE SPINE AND METAPHYSES OF THE SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAW SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                         184250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S26396; S26396.
W; HGNC:2185; COL10A1.
                                                                             401
             100
                                  461
                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                 PR00007;
                                  GFPGSKGDPGSPGPPGPAGIATKGLNGPTGPPGPPGPRGHSGEPGLPGPPGPPGPPGQAV
             VΡ
                                                                             GNPGLPGPKGDPGVGGPPGLPGPVGPAGAKGMPGHNGEAGPRGAPGIPGTRGPIGPPGIP
                                                                                                  GSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP
                                                                                                                                                                                                                                                                                                                                    Collagen;
                                                                                                                                                                                                                                                      1
19
19
57
520
545
                                                                                                                          Conservative
                                                                                                                                                                                                                                                  COMPLEMNTC1Q.
                                                                                                                                                                                                       545
                                                                                                                                                                                                                                                                                                                                                                                                                  C1q.
Collagen.
                                                                                                                                      31.6%;
                                                                                                                                                                                                                                                                                                                                   Connective tissue; Repeat; Signal; Disease mutation; P
                                                                                                                          34;
                                                                                                                         Score 418.5;
Pred. No. 3.5e
94; Mismatches
                                                                                                                                                                                  /FTId=VAR_001840.
C -> R (IN SMCD).
                                                                                                                                                                                                          G
                                                                                                                                                                                                                                                     C1Q.
G -> E (IN
                                                                                                                                                                                                                                                                                                   COLLAGEN ALPHA 1(X)
NONHELICAL REGION (A
                                                                                                                                                                                                                                                                             NONHELICAL
                                                                                                                                                                                                                                                                                         TRIPLE-HELICAL REGION
                                                                                                                                                                                                                                                                                                                          POTENTIAL.
                                                                                                                                                                       /FTId=VAR_001841.
                                                                                                                                                                                                                   /FTId=VAR_001839
                                                                                                                                                                                                                               /FTId=VAR_001838
G -> R (IN SMCD)
-PRSAFSAKRSESRVPPPSDAPLPFDRVLVNE
                                                                                                                         1.5e-22;
nes 82;
                                                                                                                                                                                                                                                        SMCD)
                                                                                                                                                                                                                                                                             REGION
                                                                                                                                                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VIII COLLAGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OF SPONDYLOMETAPHYSEAL
                                                                                                                                                                                                                                                                                                                                   t; Hydroxylation; Polymorphism.
                                                                                                                          Indels
                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GROUP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OF THE
                                                       -GPAGPTGPAGECS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TUBULAR
                                                                                                                                                 680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OF HERITABLE
                                                                                                                          67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 collaboration
                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BONES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           no
                                                        99
                                                                               460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     its
```

674;

Gaps

467

73

101

145

585

643

204

```
CRESULT

ID ACT

ID AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-89380199; PubMed-2476437;
Yamaguchi N., Benya P.D., van der Rest M., Ninomiya Y.;
Yamaguchi N., Benya P.D., van der Rest M., Ninomiya Y.;
The cloning and sequencing of alpha 1(VIII) collagen cDNAs
demonstrate that type VIII collagen is a short chain collagen and
contains triple-helical and carboxyl-terminal non-triple-helical
domains similar to those of type X collagen.";
J. Biol. Chem. 264:16022-16029(1989)
-I- FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC
CHONDROTICETES AND HAS BEEN LOCALIZED TO PRESUMPTIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gallus gallus (Chicken).
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P08125;
01-AUG-1988 (Rel. 08, Created)
01-NOV-1991 (Rel. 20, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIINE-89054019; PubMed-2461368;
Luvalle P., Ninomiya Y., Rosenblum N.D.,
"The type X collagen gene. Intron sequence
region and separate the coding regions for
terminal and triple-helical domains.";
J. Blol. Chem. 263:18378-18385(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "The
                                                                                                                                                                                                                                                                                                                                                       ++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Collagen alpha COL10A1.
                                                         PIR; A31896; A31896.
InterPro; IPR001073; Clq.
                                                                                             EMBL;
                                                                                                                EMBL;
                                                                                                                                                                       entities
                                                                                                                                                                                        modified
                                                                                                                                                                                                                             the
                                                                                                                                                                                                                                                between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REVISIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1-75 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ninomiya Y., Gordon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 48-674 FROM N.A., AND MEDLINE-86168227; PubMed-3082876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CA1A_CHICK
                                                                                                                                                    send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biol. Chem.
                                                                                                                                                                                                                                                                                            SUBUNIT: HOMOTRIMER.

FYM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS. SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS. SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Ew European Bioinformatics Institute. There are no restrument in the statement is not removed. Usage by and this statement is not removed. Usage by and itles requires a license agreement (See http://www.isb-send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                           MINERALIZATION ZONES OF HYALINE CARTILAGE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               developmentally regulated type X reading frame without introns.";
                                                                                             M13496; AAA48736.1;
J04194; AAA48634.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGSAIIDLTENDQVWLQLPNAESNGLYSSEYVHSSFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQHYDPRTGIFTCQIPGIYYFSYHVHVKGTHVWVGLYKNGTPVMYTYDEYTKGYLDQA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MPEGFIKAGQRPSLSGTPLVSANQGVTGMPVSAFTVILSKAY -- PAIGTPIPFDKILYNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TO C-TERMINUS
                                        IPR000087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1(X)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261:5041-5050(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ξ
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chain precursor.
                                        Collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      van
                                                                                                                ALT_SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      der Rest M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    n N.D., Olsen
sequences sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               674 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ., Olsen B.R.; ences split the 5'-untranslated for the non-collagenous amino-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schmid
                                                                                                                                                                     http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF 103-117 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Η.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Linsenmayer T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contains a
                                                                                                                                                                                                                           restrictions
                                                                                                                                                                                        and
                                                                                                                                                                                                                                              EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      453-466
                                                                                                                                                                                                                                                a collaboration
                                                                                                                                                                                        for commercial
                                                                                                                                                                                                                                            outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                long
                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    578
                                                                                                                                                                                                          way
                      CRETT RECEPTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C1QC_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUL-1993 (Rel. 2
01-JUL-1993 (Rel. 2
16-OCT-2001 (Rel. 4
                                STRAIN-BALB/C; TISSUE-Liver;
STRAIN-BALB/C; TISSUE-Liver;
MEDLINE-96186528; PubMed-8606057;
Metry F., McClive P. J., Botto M., Mor
"The mouse C1q genes are clustered or
conservation of gene organization.";
Immunogenetics 43:370-376(1996).
                                                                                                                                                                                                                     STRAIN-ICR; TISSUE-Macrophage;
MEDILINB-93011118; PubMed-1396691;
Petry F., Reid K.B.M., Loos M.;
Petry F., Reid K.B.M., Loos M.;
"Isolation, sequence analysis and characterization of cDNA clones coding for the C chain of mouse Clq. Sequence similarity of complement subcomponent Clq, collagen type VIII and type X and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
DOMAIN
DOMAIN
DOMAIN
DOMAIN
MOD_RES
MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PR00007; COM
SMART; SM00110; C10;
                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Complement Clq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C1QC_MOUSE
Q02105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cartilage;
                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                          precerebellin."
                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                CIQG OR CIQC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF01391; Collagen; PRINTS; PR00007; COMPLEM
                    Immunogenetics
                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96;
                                                                                                                                                                                        Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VWLQLPNSESNGLYSSEYVHSSFSGFL 670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGHPGLPGPVGPQGVKGVPGINGEPGPRGPSGIPGVRGPIGPPGMPGAPGAKGEAGAPGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PS01113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VWVQVGVGDYIGIYASIKTDSTFSGFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIPGLYYFSYHVHAKGTNVWVALYKNGSPVMYTYDEYQKGYLDQA--SGSAVIDLMENDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPEDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GMSFMKAGANQALTGMPVSAFTVILSKAY--PGATVPIKFDKILYNRQQHYDPRTGIFTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PGPAGIVTKGLRGPMGPLGPPGPKGNSGEPGLPGPPGPPGPPGQSTIPEGYVKGESRELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
513
513
453
674
74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                      Q
L
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                subcomponent,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                     209:129-134(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                              26, Created)
26, Last sequence update)
40, Last annotation update)
hoomponent, C chain precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPLEMNTC10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C1Q;
                      ASSOCIATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           674
52
512
674
674
453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   66434 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31.5%;
36.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Connective tissue; Repeat; Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -GDPGPRGEA-----GPAGPTGPAGECSVP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34;
                      HTIW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 417;
Pred. No. 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRIPLE-HELICAL REGION NONHELICAL REGION C1Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HYDROXYLATION. HYDROXYLATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COLLAGEN ALPHA 1()
NONHELICAL REGION
                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata;
Sciurognathi; Muridae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EAB48B1EF174B145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                      THE
                                                                          Morley B.J., Morahan
on chromosome 4 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       231
                      PROENZYMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
1.4e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                           Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1(X)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X) CHAIN.
(NC2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (NC1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRC64;
                      Clr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
                      AND
                                                                                                                                                                                                                                                                                                                                                                                           Murinae;
                                                                            show
```

ClS

5

YIELD

ROOT

```
Query Match
Best Local S
Matches 103
                                                                                                                                                                                                                                                                                  MOD_RES
                                                                                                                                                                                                                                                                                                                           MOD_RES
                                                                                                                                                                                                                                                                                                                                                       MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                          MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00007; COMPLE SMART; SM00110; C10; 1. PROSITE; PS01113; C10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPRO01073; C1q.
InterPro; IPRO00087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 1.
                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                               MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                           MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Complement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C1, THE FIRST COMPONENT OF THE SERUM COMPLEMENT SYSTEM. THE COLLAGEN-LIKE REGIONS OF C1Q INTERACT WITH THE CA(2+)-DEPENDENT C1(2)C1S(2) PROENZYME COMPLEX, AND EFFICIENT ACTIVATION OF C1 TAKES PLACE ON INTERACTION OF THE GLOBULAR HEADS OF C1Q WITH THE FC REGIONS OF IGG OR IGM ANTIBODY PRESENT IN IMMUNE COMPLEXES. SUBUNIT: C1 IS A CALCIUM-DEPENDENT TRIMOLECULAR COMPLEX OF C1Q, R AND S IN THE MOLAR RATION OF 1:2:2. C1Q ROMPONENT IS COMPOSED OF NINE SUBUNITS, SIX OF WHICH ARE DISULFIDE-LINKED DIMERS OF THE A AND B CHAINS, AND THREE OF WHICH ARE DISULFIDE-LINKED DIMERS OF THE THE C CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN. SIMILARITY: CONTAINS 1 ClQ DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S29328; S29328
MGI:88225; Clq
                                              129
                                                                        112
                                                                                                                                                                                                               103;
                                                                                                  69
                                                                                                                              61
                                                                                                                                                          15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        X66295; CAA46993.1;
                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Signal
                                                                                                                                                                                                                              Similarity
GESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFL:||| | | | | : | : | : | : | !||||
                                                                                                                                                                        LLVLLLGLAAGSPPLDDNKIPSLC---PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                          APGEKGEGGRPGLPGPRGDPGPRGEA----GPAGPTGPAGECSVPPR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           non-profit institutions as long
                                             TTQY-PEANALVRENSVVTNPQGHYNPSTGKFTCEVPGLYYF-VYYTSHTANLCVHLNLN
                                                                                                 {\tt TQGPKGQKGEPGMPGHRGKNGPRGTSGLPGDPGPRGPPGEPGVEGRYKQKHQSVFTVTRQ}
                                                                                                                                                        LLLLFLLAL-----PL-RSQASAGCYGIPGMPGMPGAPGKDGHDGLQGPKGEPGIPAVPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pathway;
                                                                                                                                                                                                                                                                    37
40
43
61
64
73
76
79
79
79
79
79
100
100
109
246
                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30
32
114
33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAA63535.1;
                                                                                                                                                                                                                                                               37
40
41
61
64
64
79
79
82
97
100
100
100
25966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPLEMNTC1Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29
246
113
246
33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Plasma; Hydroxylation; Glycoprotein;
                                                                                                                                                                                                                             31.1%;
                                                                                                                                                                                                                                                                       X
X
                                                                                                                                                                                                               ω
ω
                                                                                                                                                                                                                             Score 412;
Pred. No. 3
                                                                                                                                                                                                                                                                                  HYDROXYLATION HYDROXYLATION
                                                                                                                                                                                                                                                                                                                           HYDROXYLATION HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                    HYDROXYLATION HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                               HYDROXYLATION HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                          HYDROXYLATION HYDROXYLATION
                                                                                                                                                                                                                                                                                                               HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                        HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                       HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPLEMENT C1Q COLLAGEN-LIKE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INTERCHAIN
                                                                                                                                                                                                                                                                       2F79EA1274BCB8E0
                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     There
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HTIW)
                                                                                                                                                                                                                             DB 1;
.7e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           as
                                                                                                                                                                                                                                                                                                                                                                                                                          (BY SIMILARITY).
(BY SIMILARITY).
(BY SIMILARITY).
                                                                                                                                                                                                                                                                                    (BY
                                                                                                                                                                                                                                                                                                                                                       (BY
                                                                                                                                                                                                                                                                                                                            (BY
                                                                                                                                                                                                                                                                                                                                                                    (BY
(BY
(BY
                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBCOMPONENT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Usage
                                                                                                                                                                                                               84;
                                                                                                                                                                                                                                                                                                          Y SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         are no
                                                                                                                                                                                                                                                                                  SIMILARITY).
SIMILARITY).
                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       he EMBL outstation restrictions on it
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN)
                                                                                                                                                                                                                                           246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                               24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                           SAFSAKRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'n
                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           commercia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                  128
                                           186
                                                                       171
                                                                                                                                                       89
                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  망
```

Ş 밁 δÃ 망 δÃ

Š 유

Pred.

```
CAIA_BOVIN
ID CAIA_BOVIN
ID CAIA_BOVIN
AC P23206;
DT 01-NOV-1991
DT 01-NOV-1991
DT 15-JUL-1999
CC CLILagen alp
GN COLIDAI
OS BOS taurus ()
OC EUKARYOCE FRO)
RC TISSUE-CARTI
RX MEDLINE-9111.
RA Thomas J.T.,
RI THOMAS J.T.,
CC -1- SUMULARI
CC -1- SUMULARI
CC -1- SUMULARI
CC -1- SIMILARI

           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=91113131; pubMed=1703407; Thomas J.T., Kwan A.P.L., Grant M.E., Boot-Handford R.P.; Thomas J.T., Kwan A.P.L., Grant M.E., Boot-Handford R.D.; Tipolation of cDNAs encoding the complete sequence of bovine type collagen. Evidence for the condensed nature of mammalian type X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Ch
Mammalia; Eutheria; Ce
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1991 (Rel.
01-NOV-1991 (Rel.
15-JUL-1999 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                          Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                                                                                    ProDom; PD000007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRINTS; PR00007; COMPLEMNTC1Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; S13301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; X53556; CAA37624.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Cartilage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bos taurus (Bovine)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Collagen alpha 1(X)
                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS01113; C1Q;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                collagen genes.";
Biochem. J. 273:141–148(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR001073; Clq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS. SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE MINERALIZATION ZONES OF HYALINE CARTILAGE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ween the Swiss Institute of Bioinformatics European Bioinformatics Institute. There a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: STRONG, TO ALPHA 1 AND SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 232 VYSD 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              187
                                                                                                                                                                                                                                                                                                                                                                                                      SM00110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LFPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LARVASFCDHMFN-SKOVS-SGGALLRLQRGDEVW--LSVNDYNGMVGIEGSNSVFSGFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IPR000087;
                                                                                                                                                                                                                                                                                                                                       Collagen;
                                                                                                                               19
57
520
539
194
460
463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S13301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HOMOTRIMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                  AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                      C10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20,
20,
38,
                                                                                                                                                                                                                                                                                                                                                                                                                         Collagen;
                                                                                                                            18
674
56
519
674
674
197
460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chain
              31.18;
                                                                                  65546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Collagen.
                                                                                                                                                                                                                                                                                                                                  Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence up
                                                                                                                                                                                                                                                                                                                                                            Connective
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                  WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       precursor
                                                                                                NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION.
NONHELICAL REGION (NC1).
C1Q.
BY SIMILARITY
HYDROXYLATION (BY SIMILARITY).
HYDROXYLATION (BY SIMILARITY).
N-LINKED (GLCNAC...) (POTENTIAL).
                                   Score 411.5;
                                                                                                                                                                                                                                                                                                                                  Glycoprotein.
                                                                                                                                                                                                                                                                                        COLLAGEN ALPHA 1(X) CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                  CD4CA73A03E004CA
                                                                                                                                                                                                                                                                                                                                                       tissue;
. No. 1.1e-21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            There are no rest
                                                                                                                                                                                                                                                                                                                                                          Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Usage
                                                                                  CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                          Hydroxylation;
                                     Length 674;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bу
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                commercia:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                242
```

δÃ

230

271

171

155

213

111

95

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Complement-clq tumor necrosis factor-related |
ClQTNF7 OR CTRP7.
                    DOMAIN
DOMAIN
                                                                                                                                                                     Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 2.
                                                                                                                                                                                                                                                                                                                                                                                                            This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                     PRINTS;
                                                                                                                                                                                                       InterPro; IPR001073; Clq.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                   EMBL; AF329839; AAK17963.1; -.
EMBL; BC022187; AAH22187.1; -.
Genew; HGNC:14342; C1QTNF7.
                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                        entities requires a
                                                                                                                                                                                                                                                                                                                                           modified and
                                                                                                                                                                                                                                                                                                                                                           use
                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (JAN-2002) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Homo sapiens comple
Submitted (DEC-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Piddington C.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-JUN-2002 (Rel. 41,
15-JUN-2002 (Rel. 41,
15-JUN-2002 (Rel. 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            о9вхл2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CQT7_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              œ
                                                                                                                                                                                                                                                                                                                                                                                                                                       mitted (JAN-2002) to the EMBL/GenBank/DDBJ databases SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN.
SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                         European
                                                                                                                                                                                                                                                                                                                                                                     SWISS-PROT entry is copyright. It is produced through
een the Swiss Institute of Bioinformatics and the EN
European Bioinformatics Institute. There are no resti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15
                                                                                                                                    ; PR00007; COM
SM00110; C10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96;
                                                                                                                                                                                                                                                                                                         pean profit increase a dand this statement is a license a france of the peak o
                                                                                                                    PS01113; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GNPGLPGPKGDPGIAGSPGLPGPVGPAGAKGVPGHNGEAGPRGVPGIPGTRGPIGPPGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLEPEDOVWVQVGVGDYIGIYASIKTDSTFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GFPGSKGDVGTPGPPGPAGIAVKGLNGPTGPPGPPGPPGPRGNAGEPGLPGPPGPPGPPGQVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DLTENDQVWLQLPNAGSNGLYSPEYVHSSFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RTGIFTCKIPGIYYFSYHIHVKGTHAWVGLYKNGTPVMYTYDEYIKGYLDQA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LPEDFVKAGQRPFVSANQGVTGMPVSAFTVILSKAY - - PAIGTPIPFDKILYNKQQHYDP
                                                                                                 Signaı.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sheppard P.O., Bishop P., La:
mplement-clq tumor necrosis fa
000) to the EMBL/GenBank/DDBJ
                                                                                                                                                       COMPLEMNICIO
                                                                   16
289
                    139
276
                                                                                                                                                                                                                                                                                                                                                      institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34;
                 POTENTIAL.
COMPLEMENT-C1Q TUMOR N
RELATED PROTEIN 7.
COLLAGEN-LIKE.
C1Q.
                                                                                                                                                                                                                                                                                                                                        is not removed.
                                                                                                                                                                                                                                                                                                                        agreement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata;
Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --PRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDA 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             289
                                                                                                                                                                                                                                                                                                                        (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -GPRGDPGPRGEA-----GPAGPTGPAGECS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lasser G.W.;
s factor-related
                                                                                                                                                                                                                                                                                                                       http://www.isb-sib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             232
                                                                                                                                                                                                                                                                                                                                        Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84;
                                                                     NECROSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                        γď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7
                                                                                                                                                                                                                                                                                                                                                                       restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            precursor
                                                                                                                                                                                                                                                                                                                                        and
                                                                                                                                                                                                                                                                                                                                                                                         EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                          a collaboration -
                                                                     FACTOR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61;
                                                                                                                                                                                                                                                                                                                                        for
                                                                                                                                                                                                                                                                                                                       .ch/announce/
                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGSAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                           o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6,
                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
CA1A_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1995 (Rel. 32)
01-NOV-1995 (Rel. 32)
01-NOV-1995 (Rel. 32)
Collagen alpha 1(X)
                                                                                                                                                                                                                                                                                                                                                                                                                                      Elima K., Eerola I., ROSACI K., FALLER DE COMBRUGGHE B., Vuorio E.;
de Crombrugghe B., Vuorio E.;
"The mouse collagen X gene: complete nucleotide"
"The mouse collagen X gene: complete nucleotide"
               Elima K., Metsaeranta M., Kallio J.,
Garofalo S., de Crombrugghe B., Vuor
"Specific hybridization probes for m
                                                                                                                                Apte S.S., Seldin M.F., Hayashi M., Olsen B.R., "Cloning of the human and mouse type x collagen the mouse type x collagen gene to chromosome 10 Eur. J. Biochem. 206:217-224(1992).
                                                                                                                                                                                                                                                                                                                 Kong R.Y.C., Kwan
Grant M.E., Cheah
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=BALB/C;
MEDLINE=93143676;
                                                                  STRAIN=C57BL/6;
MEDLINE=92182017; PubMed=1543751;
                                                                                                                                                                                                                                                                  "Intron-exon structure, alternative the mouse collagen X gene, Coll0a-1. Eur. J. Biochem. 213:99-111(1993).
                                                                                                                                                                                                                                                                                                                                                    STRAIN=129/Sv; TISSUE-Liver; MEDLINE-93238750; PubMed-847
                                                                                                                                                                                                                                                                                                                                                                                                                        structure and expression pattern."; Biochem. J. 289:247-253(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAIA_MOUSE
Q05306;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                    SEQUENCE OF 385-627 FROM
                                                                                                                                                                                                  MEDLINE-92267014;
                                                                                                                                                                                                                     STRAIN=DBA/2J;
                                                                                                                                                                                                                                     SEQUENCE OF 51-680 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COLIOA1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DQGETGKKGPIGPEGEKGEVGPIGPPGPKGDRGEQGDPGLPGVCRCGSIVLKSAFSVGIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLYVD 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LVYSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIK-TDSTFSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TSY--PEERLPIIFNKYLFNEGEHYNPATGKFICAFPGIYYFSYDITLANKHLAIGLVHN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EGGRPGLPGPRGDPGPRGEAGPAGPTGPAGE--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IPGLPGPPGPPGANGSPGPHGRIGLPGRDGRKGEKGEKGTAGLRGKTGPLGLAGEKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GQYRIKTFDANTGNHDVA--SGSTVIYLQPEDEVWLEIFFTDQNGLFSDPGWADSLFSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                  PubMed=1587271;
M.F., Hayashi M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32, Created)32, Last sequence update)32, Last annotation updatX) chain precursor.
                                                                                                                                                                                                                                                                                                                     K.S.E.;
                                                                                                                                                                                                                                                                                                                                    PubMed=8477738;
K.M., Lau E.T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PubMed=8424763;
I., Rosati R., M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30683 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31.0%;
                                                                                                    N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 410.5;
Pred. No. 5.4e
%6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A61609FF86D26946 CRC64;
                                  Vuorio
                                                                                                                                                                                                                                                                                                                                    Thomas J.T.,
                 mouse alpha
                                                                                                                                                                                                                                                                                       .";
                                                  Peraelae M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           update)
                                  Ξ.
                                                                                                                                                                                                                                                                                                       of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .4e-
                                                                                                                                                                                                                                                                                                     promoter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ۲.
                                                                                                                                                                                                                                                                                                                                        Boot-Handford R.P.,
                 2(IX) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Garofalo
                                                                                                                                                     genes
.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence,
                                                    Eerola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Murinae;
                                                                                                                                                                   and mapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -C-SVPPRSAFSAKRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                       expression
                 alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               289;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Perala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -GAPGEKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                     of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
```

į,

```
В
                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                $\frac{1}{2} \frac{1}{2} \frac
                                                                             밁
                                                                                                                   δÃ
                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                         밁
                          Ş
                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen; 9.
PRINTS; PR00007; COMPLEMNTC10.
PTODOM; PD000007; Collagen; 2.
SMART; SM00110; ClQ; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          collagen mrNas.";
Blochim. Blophys. Acta 1130:78-80(1992).
-i- FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYDERTHROPHIC CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE MINERALIZATION ZONES OF HYALINE CARTILAGE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS01113; C1Q; Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      modified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cartilage; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Exercipean Bioinformatics Institute. There are no restriby non-profit institutions as long as its content lifted and this statement is not removed. Usage by and the statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          L; X67348; CAA4776.

L; X65121; CAA4623

L; X63013; CAA474

L; Z21610; CAA7973

S28807; S28807;

S31216; S31216;

S22215; S22215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS. SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS. SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBUNIT: HOMOTRIMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MGI:88445; CollOal.
                                                                                                                                                                                 446
                                                                                                                                                                                                                                                                                       392
                                                                                                                              87
                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                       15
                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
PSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNG-ESIA
                                                                                                                                                                                                           GLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPR----
                                                                                                                                                                                                                                                                                 GEPGLNGPK-----GNPGLPGQKGDPGVGGTPGLRGPVGPVGAKGVPGHNGEAGPRGEP
                                                                           LPGPPGPPGPPGQAVMPDGFIKAGQRPRLSGMPLVSANHGVTGMPVSAFTVILSKAY--P
                                                                                                                                                                                 GIPGTRGPTGPPGVPGFPGSKGDPGNPGAPGPAGIATKGLNGPTGPPGPPGPRGHSGEPG
                                                                                                                                                                                                                                                                                                                                    GSPPLDDNKIPSLCPGHPGLP-----
                                                                                                                                --GPAGPTGPAGECSVP---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   520
545
248
286
286
306
417
500
567
571
                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; CAA47763.1; -.; CAA46237.1; -.; CAA44741.1; -.; CAA79736.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                matrix; Connective tissue; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5690
519
580
580
680
580
248
286
286
306
417
417
451
569
559
559
559
559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             66775 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                  30.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal.
                                                                                                                                                                                                                                                                                                                                                                                       34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NONHELICAL | C1Q.
P -> L (IN | A -> S (IN | T -> F (IN | R -> K (IN | 
                                                                                                                                                                                                                                                                                                                                                                                                                  Score 408;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COLLAGEN ALPHA 1(X) CHAI
NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION.
NONHELICAL REGION (NC1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FE984CA99AF708E2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IN REF. 3).
Y (IN REF. 3).
IN REF. 3).
99AF70°
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      There are no restrictions ng as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REF.
                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1.9e-2
                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                        PRSAFSAKRSESRVPP
                                                                                                                                                                                                                                                                                                                                    -GTPGHH-----GSQ
                                                                                                                                                                                                                              -GDPGPRGEA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
                                                                                                                                                                                                                                                                                                                                                                                          ;88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               collaboration -
                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                          176
                                                                                                                                                                                                                                                                                 445
                                                                                                                                                                                 505
                                                                                                                                                                                                                                                                                                                                    44
                                                                           563
                                                                                                                              117
                                                                                                                                                                                                                              86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              way
                                                                                                                                                                                                                                                                                                                                                                                          9
```

```
RESULT 10
CQT2_HUMAN
CQT2_HUMAN
CQT2_HUMAN
CQT2_HIMAN
CQT2_HIMAN
DT 15-JUN
COMPLIE
GN CLITAT
RP SEQUEN
RA FIAUS
RA STRAUS
RL SUBMIT
CC -!-SI
CC -!-SI
CC -!-SI
CC ----
CC This Su
CC INSUE
RA STRAUS
RL SUBMIT
CC ----
CC THIS SU
CC ----
CC THIS SU
CC ----
CC THIS
CC ----
CC THIS
CC ----
CC Betwee
CC THE EU
CC ----
CC BOLL
CC ----
CC BOLL
CC ----
CC BOLL
CC ----
CC BOLL
CC ----
CC SEMBL;
DR GENBL;
DR GENBL;
DR FAM;
DR FAM;
DR Pfam;
DR Pfam;
DR Pfam;
DR PAM;
DR SMART;
DR SMART;
DR SMART;
DR SMART;
DR SMART
FT CHAIN
FT DOMAIN
FT DOMAIN
FT DOMAIN
                                                밁
                                                                          Qy
                                                                                                            밁
                                                                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2
                                                                                                                                                                         Query Match
Best Local S
Matches 98
                                                                                                                                                                                                                                       DOMAIN
DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CQT2_HUMAN
Q9BXJ5;
                                                                                                                                                                                                                                                                                                       SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                   PRINTS; PR00007; COMPLI
SMART; SM00110; C1Q; 1
PROSITE; PS01113; C1Q;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg R.;
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ
-i- SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN.
-i- SIMILARITY: CONTAINS 1 ClQ DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
Eukaryota; Metazoa; (
Mammalia; Eutheria; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AF329836; AAK17960.1; -. EMBL; BC011699; AAH11699.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Complement-clq tu
                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR001073; Clq.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genew; HGNC:14325; C1QTNF2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Piddington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Complement-clq_tumor necrosis factor-related protein
                                                                                                                                                                                                                                                                                                                                         Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EQUENCE FROM N.A.
                109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               624
                                                                                                                                                                                                                                                                                                                                                                                                    PF00386; C1q; 1.
PF01391; Collagen; 2
                                              71
                                                                                                            18
                                                                                                                                             9
                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KRSESRVPPPSDA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYDEYSKGYLDQA--SGSAIMELTENDQVWLQLPNAESNGLYSSEYVHSSFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AVGAPIPEDEILYNRQQHYDPRSGIFTCKIPGIYYFSYHVHVKGTHVWVGLYKNGTPTMY
                                                HDGDRGDSGEEGPPGRTGNRGKPGPKGKAGAIGRAGPRGPKGVNGTPGKHGTPGKKGPKG
                                                                                                             LLGAFARRDFRKGSPQL
                                                                               RDGAPGAPGEKGEGGRP---
                                                                                                                                           LLGLAA-----GSPPLDDNKIPSLC-----PGHPGLPGTPGHHGSQGLPGRDGRDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        iens complement-clq tumor necrosis factor-related protein."; (DEC-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                       Signal.
                                                                                                                                                                                                                                            285
                                                                                                                                                                                                                                                          40
143
                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                         16
                                                                                                                                                                                                                                          AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                     COMPLEMNTC1Q.
                                                                                                                                                                                                                                                                                                       15
285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chordata;
Primates;
                                                                                                                                                                                                                                            29952
                                                                                                                                                                                          30.4%;
36.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P.;
                                                                                                                                                                                                                                            WW.
                                                                                                                                                                           29;
                                                                                                                                                                                                                                                                      POTENTIAL.

COMPLEMENT-C1Q TUMOR N

RELATED PROTEIN 2.

COLLAGEN-LIKE.
                                                                                                                                                                                                                           C1Q.
; 7E31FF9868D4EDFA CRC64;
                                                                                                                                                                         Score 403; DB 1;
Pred. No. 1.8e-21;
9; Mismatches 91
                                                                          -GLPGPRGDPGPRGEAGPAGP---TGPAGECSVPPRSAFSA
                                                                                                            ----VCSLPGPQGPPGPPGAPGPSGMMGRMGFPGKDGQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hominidae;
PLPFDRVLVNEQGHYDAVTGKFTCQ
                                                                                                                                                                           91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            databases
                                                                                                                                                                                                         Length 285;
                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                         NECROSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL
                                                                                                                                                                           52;
                                                                                                                                                                                                                                                                                                           FACTOR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               collaboration -
                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               677
                                              130
                                                                              108
                                                                                                            70
                                                                                                                                                                           8
```

밁

131

KKGEPGLPGPCSCGSGHTKSAFSVAVTKSYPRERLPIKFDKILMNEGGHYNASSGKFVCG

190

+

SI

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
          TIMUNOSHOLD BASIS OF hereditary Clq deficiency.";

RT "MOLECULAR CLQ ASSOCIATES WITH THE PROENZYMES CLR AND CLS TO YIELD CLI, THE FIRST COMPONENT OF THE SERUM COMPLEMENT SYSTEM. THE CLILAGEN-LIKE REGIONS OF CLQ INTERACT WITH THE ACTIVATION OF CL TAKES PLACE ON INTERACTION OF THE LOBULAR HEADS OF CLQ WITH THE FC REGIONS OF IGG OR IGM ANTIBODY PRESENT IN IMMUNE COMPLEXES.

-1- SUBUNIT: CLIS A CALCIUM-DEPENDENT TRIMOLECULAR COMPLEXES.

AND S IN THE MOLAR RATION OF 1:2:2. CLQ SUBCOMPONENT IS COMPOSED OF NINE SUBUNITS, SIX OF WHICH ARE DISULFIDE-LINKED DIMERS OF THE AND B CHAINS, AND THREE OF WHICH ARE DISULFIDE-LINKED DIMERS OF THE THE C CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C10C_HUMAN STANDARD;
C10C_HUMAN STANDARD;
P02747; Q96DL2; Q96H05;
21-JUL-1986 (Rel. 01, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-Cerebellum;

Mishi T., Nakagawa S., Senoh A., Mizuguchi Hata H., Nakagawa K., Mizuno S., Morinaga M. Sugiyama T., Irie R., Otsuki T., Sato H., N. Sugiyama B., Nagai K., Isogai T., Sugano S. "NeDO human cDNA sequencing project."

NEDO human cDNA sequencing project."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-91174759; PubMed-1706597; Sellar G.C., Blake D.J., Reid K.B.M.; "Characterization and organization of the genes encoding the A-, and C-chains of human complement subcomponent Clq. The complete derived amino acid sequence of human Clq."; Biochem. J. 274:481-490(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Complement Clq subcomponent, ClqG OR ClQC.
                                                                                                                                                                                                                                                                                                          "Complete amino acid sequences of present in subcomponent Clq of the complement ":
                                                                                                                                                                                                                                                                                                                                                Reid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Monocytes;
MEDLINE-91174759;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                      complement.
                                                                                                                                                                                                                                                                                                                                                         MEDLINE-80020137;
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 29-122.
                                                                                                                                                                                                                                                                                                                                                                                                       Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                 Strausberg R
                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HUMAN
Ą
                                                                                                                                                                                                                                                                                                                                                K.B.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              147
                                                                                                                                                                                                                                                                                      ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VQVGVGDYIGI-YASIKTDSTFSGFLYYSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LQIFYSEQNGLFYDPYWTDSLFTGFLIYAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VPGIYYFTYDITLANKHLAIGLVHNGQYRIRTFDANTGNHDVA--SGSTILALKQGDEVW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VPGVYYFAVHATVYRASLQFDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (OCT-2001)
                                                                                                                                                                                                                                                                                                                                                                                                     (MAY-2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      s (Human).
s (Human).
chordata; C
                                                                                                                                                                                                                                                                                     179:367-371(1979).
                                                                                                                                                                                                                                                                                                                                                            PubMed-486087;
                                                                                                                                                                                                                                                                                                                                                                                                       ៥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ç
                                                                                                                                                                                                                                                                                                                                                                                                       the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     project.";
EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                     EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                   the
                                                                                                                                                                                                                                                                                                                              the three collagen-like regions
                                                                                                                                                                                                                                                                                                                first component of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nishikawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                H., Inagaki H.,
M., Kawamura M.,
                                                                                                                                                                                                                                                                                                                                                                                                     databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sugiyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Suzuki Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206
                              Ş
```

Matches

Conservative

1 MRPLLVLLLLGLAAGSPPLDDNKIPSLC---PGHPGLPGTPGHHGSQGLPGRDGRDGRDG

84;

Indels

34;

Gaps

57 10;

= = = -=

```
Query Match
Best Local
                                     CONFLICT
                                                                                                                                                                      CARBOHYD
MOD_RES
                                                                                                                                                                                      CARBOHYD
MOD_RES
MOD_RES
                                                                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                       MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                                                                     Repeat;
                                                                                                                                    MOD_RES
                                                                                                                                            MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This
                                                                                                                                                                                                                                                                                                                                                    Complement pathway; Plasma;
                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00386; C1q; 1. Pfam; PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AK057792; BAB71575.1; EMBL; BC009016; AAH09016.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the
                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS01113; C1Q;
                                                                                                                                                                                                                                                                                                                                                                             PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR001073;
InterPro; IPR000087;
                                                                                                                                                                                                                                                                                                                                                                                                                         MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                                Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; A03207;
PIR; S14351;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            between
                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISEASE: DEFECTS IN C1QG ARE A CAUSE OF C1Q DEFICIENCY. IT IS RARE GENETIC DISORDER WHICH IS ASSOCIATED WITH RECURRENT INFECTIONS AND A HIGH PREVALENCE OF LUPUS ERYTHEMATOSUS-LIKE SYMPTOMS. IT IS CHARACTERIZED BY A LOSS OF ACTIVATION OF THE COMPLEMENT CLASSICAL PATHWAY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: CONTAINS 1 COLLAGENOUS SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  European
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                               103207; C1HUQC.
14351; S14351.
HGNC:1245; C1
                                                                                                                                                                                                                                                                                                                                                                     ; PR00007; COME
SM00110; C10;
            Similarity
                                                                                                                                                                                                                                                                                                                                           Signal;
                                     215
245
                                      AA;
                                  14
23
57
66
72
84
84
87
90
215
25774
                                                                                                                                                                                                                                                                                                                                             Disease mutation.
                                                                                                                                                                                                                                                                                                                                                                             COMPLEMNTC1Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                CLOG
                                                                                                                                    30.0%;
                                                                                                                                                                                                                                                                                                                                                                                                       Collagen
                                       Œ;
Score 397; ив
Pred. No. 4e-21
33; Mismatches
                                                                                                                                                                                                                                                                                                                                                     Hydroxylation; Glycoprotein; Collagen;
                                              E X Z O X V X
                                                                                                                                                                                                       O-LINKED (GAL.
                                                                                                                           HYDROXYLATION.
G -> R (IN C1Q D)
/FTId=VAR_008542
                                                                                                                                                     HYDROXYLATION
                                                                                                                                                                              O-LINKED (GAL.
                                                                                                                                                                                        HYDROXYI
                                                                                                                                                                                                               HYDROXYLATION
                                                                                                                                                                                                                       HYDROXYLATION
                                                                                                                                                                                                                                HYDROXYLATION
                                                                                                                                                                                                                                        HYDROXYLATION
                                                                                                                                                                                                                                                HYDROXYLATION
                                                                                                                                                                                                                                                         HYDROXYLATION
                                                                                                                                                                                                                                                                 HYDROXYLATION HYDROXYLATION
                                                                                                                                                                                                                                                                                 HYDROXYLATION
                                                                                                                                                                                                                                                                                          HYDROXYLATION
                                                                                                                                                                                                                                                                                                  INTERCHAIN (WITH
                                                                                                                                                                                                                                                                                                                   COLLAGEN-LIKE
                                                                                                                                                                                                                                                                                                                          COMPLEMENT C10 SUBCOMPONENT, C CHAIN
                                     -> N (IN REF. 4)
-> G (IN REF. 2)
FA17117EB7ABFC12
                                                               ******
                                                                                   שמאס
                  397;
                                                                        (IN REF.
(IN REF.
(IN REF.
(IN REF.
(IN REF.
                                                                                                                                                                                        LATION
            4e-21;
                                               REF. 4).
REF. 4).
REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN.
                     В
                     <u>,</u>
                                                                                                                                    DEFICIENCY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Usage
                                                                                                                                                                                                                                                                                                   OTHER C CHAIN)
                                      CRC64;
                  Length 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in no way
```

```
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멅
             PROSITE; PS01113; C1Q; 1.

Extracellular matrix; Connective tissue; Repeat; Hydroxylation; Glycoprotein; Cell adhesion; Collagen; Signal.
                                                                                        PIR; A34246; A34246;
InterPro; IPR001073; Collagen.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 8.
                                                                                                                                                                                                                                                          use
                                                                                                                                                                                                                                                                           the
                                                                                                                                                                                                                                                                                                         This
                                                                                                                                                                                                                                                                                                                                                                                                         :-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yamaguchi N., Benya P.D., van der Rest M., Ninomiya Y.;
"The cloning and sequencing of alpha 1(VIII) collagen cDNAs
demonstrate that type VIII collagen is a short chain collagen and
contains triple-helical and carboxyl-terminal non-triple-helical
domains similar to those of type X collagen.";
J. Biol. Chem. 264:16022-16029(1989)
-!- FUNCTION: MAJOR COMPONENT OF THE DESCEMET'S MEMBRANE (BASEMENT
MEMBRANE) OF CORNEAL ENDOTHELIAL CELLS.
-!- SUBUNIT: MAY FORM HOMOTRIMERS, OR HETEROTRIMERS IN ASSOCIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COL8A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
01-NOV-1995 (Rel. 32, Last annotation update)
Collagen alpha 1(VIII) chain precursor (Endot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CA18_RABIT
P14282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RABIT
                                                          PRINTS; PR00007; COMPLEMNTC1Q. SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.
                                                                                                                                                                                                                                                                                            between
                                                                                                                                                                                                                                                                                                                                                                                                                                       <del>-</del>
                                                                                                                                                                          EMBL; J05042; AAA31204.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Ve
Mammalia; Eutheria; Lagomorpha; Leporidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oryctolagus cuniculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=89380199;    PubMed=2476437;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9986;
                                                                                                                                                                                                                                      European Bioinformatics Institute. The by non-profit institutions as long ified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                  PIM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.
MISCELLANEOUS: FOUR CONSECUTIVE GLY-PRO-PRO TRIPLETS ARE PRESENT AT THE C-TERMINUS OF THE TRIPLE-HELICAL REGION. THESE MAY PROVIDE HIGH THERMAL STABILITY OF THIS REGION OF THIS REGION.
SIMILARITY: STRONG, TO ALPHA 2 TYPES VIII AND X COLLAGENS.
SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      WITH ALPHA 2(VIII) TYPE COLLAGENS
                                                                                                                                                                                                                                                                                   SWISS-PROT entry is copyright. It is produced through
een the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SVFSGFLLFPD 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STFSGFLVYSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TR-QTHQPPAPUSLIRENAVLTUPQGDYDTSTGKFTCKVPGLYYFVYHAS-HTANLCVLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YRSGVKVVT---FCGHTSKTNQVNSGGVLLRLQVGEEVW--LAVNDYYDMVGIQGS---D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VKNGESIASFFQFFGGWPKPASL-SGGAMVRLEPEDQVWVQVGVGDY---IGIYASIKTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPGIRGPKGQKGEPGLPGHPGKNGPMGPPGMPGVPGPMGIPGEPGEEGRYKQKFQSVFTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPP-----RSAFSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LKLLLLLLPLR-----GQANTGCYGIPGMPGLPGAPGKDGYDGLPGPKGEPGIPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            is (Rabbit).
Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          235
                                                                                                                                                                                                                                        is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            744
                                                                                                                                                                                                                                                     ormatics and the E
There are no rest
ong as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Endothelial collagen).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oryctolagus
                                                                                                                                                                                                                                        Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                        restrictions
                                                                                                                                                                                                                                          and
                                                                                                                                                                                                                                                                                       EMBL
                                                                                                                                                                                                                                                       18
                                                                                                                                                                                                                                                                                        a collaboration
                                                                                                                                                                                                                                          for
                                                                                                                                                                                                                                                                                       outstation
                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64
                                                                                                                                                                                                                                                       way
```

```
RESULT
COLE_LI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
DOMAIN
DOMAIN
DOMAIN
DOMAIN
                                    This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ew the European Bioinformatics Institute. There are no restruce by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE=95167486; PubMed=7863331;
Davis J.G., Oberholtzer J.C., Burns F.R.
"Molecular cloning and characterization
structural protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation updat
Inner ear-specific collagen precursor (Sacc
                                                                                                                                 ++
                                                                                                                                                                                                            Submitted (MAR-1995) to the SWISS-PROT data bank
                                                                                                                                                                                                                            Gibson
                                                                                                                                                                                                                                                                                                                                                                         Acanthomorpha;
Centrarchidae;
                                                                                                                                                                                                                                                                                                                                                                                                  Lepomis macrochirus (Bluegill).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LEPMA
                                                                                                                                                                                                                                                               structural protein.";
Science 267:1031-1034(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P98085;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COLE_LEPMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                         CONCEPTUAL TRANSLATION
                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=13106;
                                                                                                                TISSUE SPECIFICITY: SPECIALIZED SECRETORY SUPPORTING CELLS A OUTER PERIMETER OF THE SACCULAR EPITHELIUM.

SIMILARITY: CONTAINS 1 C1Q DOMAIN.

CAUTION: THIS IS A CONCEPTUAL TRANSLATION; A FRAMESHIFT HAD INTRODUCED FOR POSITIONS 391-419 SO AS TO MAXIMIZE THE SIMIL
                                                                                                                                                                                   FUNCTION: FORMS A MI
MEMBRANE (PROBABLY).
                                                                                                      WITH OTHER SHORT-CHAIN COLLAGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           475 VPGLLGPKGEPGIPGDQGLQGPPGIPGITGPSGPIGPPGIPGPKGEPGLPGPPGFPGVGK 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24 IPSLC--PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q91080;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QVWVQVGVGDYIGIYASIKTDSTFSGFLVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CEVPGVYYFAYHVHCKGGNVWVALFKNNEPVMYTYDEYKKGFLDQA--SGSAVLLLRPGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RVFLQMPSEQAAGLYAGQYVHSSFSGYLLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VKTPHAYAAKKGKNGGPAYEMPAFTAELTAPFPPVGAPIKFDRLLYNGRQNYNPQTGIFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ----AFSAKRSESRVP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPPTPAPQGEYLPDMGLGIDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------GPRGDP----GPRGE----AGPAGPTGPAGECSVPPRS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
29
118
572
609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                     Acanthopterygii; Percomorpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ă,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                         Lepomis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           744
117
571
744
744
73358
                                                                                                                                                                                                 A MICROSTRUCTURAL MATRIX WITHIN THE OTOLITHIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COLLAGEN ALPHA 1(VIII) CHAIN.
NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION.
NONHELICAL REGION (NC1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                       Burns F.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2A8CEF1EF8274E99 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----PPSDAPLPFDRVLVNEQGHYDAVTGKFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             374;
No. 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           419
                                                                                                                                                                                                                                                                                                                                                                                                                                          update)
(Saccular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.7e-1
                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostei; Neoteleostei;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       233
                                                                                                                                                                                                                                                                                           of an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                           Greene M.I.;
f an inner ea
                                                                                                                                                                                                                                                                                                                                                                                      Perciformes; Percoidel;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                          collagen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                           ear-specific
                                                                                                                SIMILARITY
                                                                               D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62;
                                                                          collaboration
                                                                                                                                                                         Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104
```

modified and this statement is not removed. entities requires a license agreement (See or send an email to license@lsb-sib.ch).

http://www.isb-sib.ch/announce,

restrictions on cent is in no and for

EMBL

outstation

its

Usage

```
B &
                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                      P27658; Q96D07;
01-AUG-1992 (Rel. 23, C
15-JUN-2002 (Rel. 41, I
15-JUN-2002 (Rel. 41, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
DOMAIN
DOMAIN
                                                                            wuragaki Y., Mattei M.-G., Yamaguchi N., Olsen "The complete primary structure of the human al assignment of its gene (COLBA1) to chromosome 3 Eur. J. Biochem. 197:615-622(1991).
                                                                                                                                            Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U17431; AAA69978.1; ALT_FRAME.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 3.
                                                                                                                                                                                                                               HUMAN
                                            Strausberg
                                                     TISSUE=Lung;
                                                             SEQUENCE FROM N.A.
                                                                                                             MEDLINE=91231001;
                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                     NCBI_TaxID=9606;
                                                                                                                                                                               Collagen alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Extracellular SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00007; COMPLE
SMART; SM00110; C1Q; 1.
           mitted (SEP-2001) to the EMBL/GenBank/DDBJ databases. FUNCTION: MAJOR COMPONENT OF THE DESCEMET'S MEMBRANE MEMBRANE) OF CORNEAL ENDOTHELIAL CELLS. SUBUNIT: MAY FORM HOMOTRIMERS, OR HETEROTRIMERS IN AS
                                                                                                                                                                                                                       HUMAN
                                                                                                                                                                                                                                                                                                                                                               217
                                                                                                                                                                                                                                                                 394
                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                337
                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                 277
                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                 157
                                                                                                                                                                                                                                                                                                                                                                               71
                                                                                                                                                                                                                                                                                                                                                                                                                15
                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                         PPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVY
                                                                                                                                                                                                                                                                                                                                                                                                         GSPPLDDNK--IPSLCPGHPGLPGTPGHHGSQGLPGR--DGRDGAPGAPGAPGEKGEGGR
                                                                                                                                                                                                                                                                DGVKGERGEPGPLGGKGDTGARGPPGPPGGRGMAGLRGEKGLKGVRGPRGPKGPPGESVE
                                                                                                                                                                                                                                                                                                                                                                                              GEPGLNGTKGSIGREGPMGPGLAGTKGLKGEQGLKGECLQGEKGERGPPGLRGEMGLNGT
                                                                                                                                                                                                                                                                                SIKTDSTFSGFLVYSD
                                                                                                                                                                                                                                                                                               NRPVRAALVVNGVRKLRTRDSLYGQDIDQA--SNLALLHLTDGDQVWLET-LRDWNGXYS
                                                                                                                                                                                                                                                                                                               RASLQFDLVKNG-ESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYA
                                                                                                                                                                                                                                                                                                                                QIRSAFSVGLFPSRSFPPPSLPVKFDKVFYNGEGHWDPTLNKFNVTYPGVYLFSYHITVR
                                                                                                                                                                                                                                                                                                                                                                               PGLPGPRGDPGP-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PS01113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
20
58
275
275
272
37
320
                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        matrix;
                                                                                                                                                                              1(VIII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΑA;
                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPLEMNTC10
                                                                                                              PubMed-2029894;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419
57
274
419
419
37
320
                                                                                                                                                                                                                                                                                                                                                                                                                                       28.2%;
                                                                                                                                                                            Last sequence update)
Last annotation update)
) chain precursor (Endothelial collagen).
                                                                                                                                                                                                      Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Repeat;
                                                                                                                                                                                                                                                                 409
                                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Œ.
                                                                                                                                                                                                                                                                                                                                                                                                                               23;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 373;
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCNAC. . .) (P
N-LINKED (GLCNAC. . .) (P
; 570CDB9675FC0F39 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INNER EAR SPECIFIC COLLAN NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION (CONNONHELICAL REGION (NC1).
                                                                                                                                             Craniata; Vertebrata; I Catarrhini; Hominidae;
                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                       744
                                                                                                                                                                                                                                                                                                                                                                               -----RGEAGPAGPTGPAGECSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal
                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1;
.1e-19;
                                                                                                                                                                                                                       B
                                                                                    n B.R., alpha 1 . 3.";
                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 419;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COLLAGEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (COL1).
                                                                                                                                                      Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                              (VIII)
                                                                                                     Ninomiya Y.;
                                                                                                                                              Homo
             ASSOCIATION
                            (BASEMENT
                                                                                                                                                                                                                                                                                                                                                                                                                               38;
                                                                                              chain
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                              and
                                                                                                                                                                                                                                                                                                393
                                                                                                                                                                                                                                                                                                                219
                                                                                                                                                                                                                                                                                                                                336
                                                                                                                                                                                                                                                                                                                                                160
                                                                                                                                                                                                                                                                                                                                                               276
                                                                                                                                                                                                                                                                                                                                                                                                216
                                                                                                                                                                                                                                                                                                                                                                                                               70
                                                                                                                                                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                                                                                                                               6
                    밁
                                 δõ
                                                    밁
                                                                  δã
                                                                                    밁
                                                                                                 δ
                                                                                                                    멂
                                                                                                                                    å
                                                                                                                                                     밁
                                                                                                                                                                    δÃ
```

```
Query Match
Best Local S
Matches 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR001073; C1q.
InterPro; IPR001087; Collagen.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 8.
PRINTS; PR00007; COMPLEMNTC1Q.
PRODOM; PD000007; C011agen; 1.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
DOMAIN
DOMAIN
DOMAIN
CONFLICT
CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; S15435; S15435.
Genew; HGNC:2215; CC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X57527; CAA40748.1; -. EMBL; BC013581; AAH13581.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             XIX;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WITH ALPHA 2(VIII) TYPE COLLAGENS.

PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.

MISCELLANEOUS: FOUR CONSECUTIVE GLY-PRO-PRO TRIPLETS ARE PRESENT AT THE C-TERMINUS OF THE TRIPLE-HELICAL REGION. THESE MAY PROVII THE HIGH THERWAL STABLILTY OF THIS REGION.

SIMILARITY: STRONG, TO ALPHA 2 TYPES VIII AND X COLLAGENS.

SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120251;
713
                                                           204
                                                                                                                      655
                                                                                                                                                                           145
                                                                                                                                                                                                                                         595
                                                                                                                                                                                                                                                                                                                                                               535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               475
                                                                                                                                                                                                                                                                                                    100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                    COVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPED
                                                                                                                                                                                                                                                                        RVFLQMPSEQAAGLYAGQYVHSSFSGYLLY
                                                        QVWVQVGVGDYIGIYASIKTDSTFSGFLVY
                                                                                                                                                                                                                                         VKPPHAYGAKKGKNGGPAYEMPAFTAELTAPFPPVGAPVKFNKLLYNGRQNYNPQTGIFT
                                                                                                                                                                                                                                                                                                                                                            PGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPPTPPPQGEYLPDMGLGIDG 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VPGLLGPKGEPGIPGDQGLQGPPGIPGIGGPSGPIGPPGIPGPKGEPGLPGPPGFPGIGK 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IPSLC--PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP-----
                                                                                                                      CEVPGVYYFAYHVHCKGGNVWVALFKNNEPVMYTYDEYKKGFLDQA--SGSAVLLLRPGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27.8%;
nilarity 33.3%;
Conservative 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cell adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28
1117
744
744
744
744
744
262
297
297
388
388
464
454
661
631
631
73364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COL8A1.
                                                                                                                                                                                                                                                                                                                                                                                                                    -GPRGDPGPRGEAGPAGPTGP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₹.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NONHELICAL REGION C1Q.

P -> L (IN REF. 1)
P -> A (IN REF. 1)
P -> A (IN REF. 1)
A -> S (IN REF. 1)
A -> S (IN REF. 1)
A -> F (IN REF. 1)
C -> F (IN REF. 1)
A -> H (IN REF. 1)
A -> H (IN REF. 1)
A -> G (IN REF. 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 368; DE
Pred. No. 1.2e
14; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NONHELICAL REGION TRIPLE-HELICAL REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COLLAGEN ALPHA 1(VIII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REF. 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REF. 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      There are no restrictions of as its content is in ved. near '
                                                           233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
.2e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NC1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (COL1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRESENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROVIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                       AGECS
                                                                                                                                                                              203
                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                         654
```

```
RESULT 15
CA18_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
A Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
A Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
A Kaito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
A Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
A Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
A Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
A Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
A Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
A Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
A Blake J., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
A Blake J., Boifelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
A Brownstein M.J., Bull C., Fletcher C., Fujita M., Gariboldi M.,
A Brownstein M.J., Bull C., Fletcher C., Fujita M., Gariboldi M.,
A Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
A Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
A Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
A Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
A Sasaki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
A Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CA18_MOUSE STANDARD; PRT; 743 AA. Q00780; Q9D2V4; Q1-NOV-1995 (Rel. 32, Created) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) Collagen alpha 1(VIII) chain precursor.
                     EMBL; X66976; CAA47387.1;
EMBL; X66977; CAA47387.1;
EMBL; AK018742; BAB31383.1
PIR; S23779; S23779.
                                                                                                                           the European Bioinformatics Institute. The use by non-profit institutions as not removed modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                            This
                                                                                                                                                                                                                                                                                                                                                                                                                                                            <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Alpha 1(VIII)-collagen gene transcripts encode a short-chain collagen polypeptide and are expressed by various epithelial, endothelial and mesenchymal cells in newborn mouse tissues."; Eur. J. Biochem. 207:895-902(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nature 409:685-690(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kawai J., Shinagawa A., Shibata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=C57BL/6J; TISSUE-Kidney;
MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse).
                                                                                                                                                                                                                                                    between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hayashizaki Y.;
"Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=92362626; PubMed=1499564;
Muragaki Y., Shiota C., Inoue M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID-10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS. SIMILARITY: STRONG, TO ALPHA 2 TYPES VIII AND X COLLAGENS. SIMILARITY: CONTAINS 1 C10 DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: MAJOR COMPONENT OF THE DESCEMET'S MEMBRANE (BASEMENT MEMBRANE) OF CORNEAL ENDOTHELIAL CELLS.
SUBUNIT: MAY FORM HOMOTRIMERS, OR HETEROTRIMERS IN ASSOCIATION WITH ALPHA 2(VIII) TYPE COLLAGENS.
TISSUE SPECIFICITY: HIGH LEVELS IN CALVARIUM, EYE & SKIN OF NEWBORN MICE; ALSO IN VARIOUS EPITHELIAL, ENDOTHELIAL AND MESENCHYMAL CELLS.
                                                                                                                                                                                                                                           SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata;
Rodentia;
                                                             JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 K., Yoshino M., Itoh M., Ishii Y.,
Y., Konno H., Adachi J., Fukuda S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ooshima
                                                                                                                                                        (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                           There are no restrictions ng as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A., Olsen
                                                                                                                                                                           Usage
                                                                                                                                                                             Ьy
                                                                                                                                                                               and
                                                                                                                                                                               for
                                                                                                                                                                                  commercial
                                                                                                                                                                                                                          8
                                                                                                                                                                                                     way
                                                                                                                                                                                                                          its
```

199 649 529

103

80

```
Q
                                                                                                     밁
                                                                                                                                                   Š
                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOUTH THE PROPERTY OF THE PROP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Extracellular matrix; Connective tissue;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS01113; C1Q;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR001073;
InterPro; IPR000087;
                                                                                                                                                                                                                                                                                                                                                                                                                          470
                                                                                                                                                      141
708
                                                                                                                                                                                                                                                                                                                  530 PGVGKPGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPTPSPQGEYLPDMGL
                                                                                                                                                                                                                                                                                                                                                                      81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29 PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGDP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
RPGDQVFLQMPSEQAAGLYAGQYVHSSFSGYLLY
                                                    EPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVY
                                                                                                     GIFTCEVPGVYYFAYHVHCKGGNVWVALFKNNEPMMYTYDEYKKGFLDQA--SGSAVLLL
                                                                                                                                   GKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRL
                                                                                                                                                                                                          GIDGYKTPHAYAGKKGKHGGPAYEMPAFTAELTVPFPPVGAPVKFDKLLYNGRQNYNPQT
                                                                                                                                                                                                                                                              -----SAFSAKR-----
                                                                                                                                                                                                                                                                                                                                                                                                                          PGLPGVPGLLGPKGEPGIPGDQGLQGPPGIPGIVGPSGPIGPPGIPGPKGEPGLPGPPGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     743 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              118
572
608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cell adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPLEMNTC1Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      743
1117
5711
743
743
743
743
743
743
85
109
109
248
313
313
313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27.7%;
32.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clq.
Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73454 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NONHELICAL REGION (NONHELICAL REGION)
C1Q.
G -> R (IN REF. 2).
H -> Y (IN REF. 1).
K -> KG (IN REF. 1).
P -> A (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 366.5;
Pred. No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IP -> SR (IN REF. 1).
D -> H (IN REF. 1).
T -> P (IN REF. 2).
MPS -> NPF (IN REF. 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COLLAGEN ALPHA 1(VIII) CHAIN NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION (COL1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Collagen; Signal. BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                      -GPRGE---AGPAGPTGPAGECSVPPR----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F584D85BD53897F4 CRC64;
                                                                                                                                                                                                                                                              -SESRVP-PPSDAPLPFDRVLVNEQGHYDAVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .5e-18;
ies 77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Repeat; Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DВ
  741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>'</u>!;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (COL1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              743;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
```

Search completed: June 13, 2003, 16:01:46 Job time : 23 secs

THIS PAGE BLANK (USPTO)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Run on:
                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
     402
395
370.5
370.5
370.5
368
363.5
314
270.5
266.5
247.5
                                                                                                                                                                422
415.5
                                                                                                                                                                                             425.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPTREMBL_21:*
1: sp_archea:*
2: sp_bacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          June 13, 2003, 15:50:06 ; Search time 32 Seconds (without alignments) 1564.670 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-42
1325
                                                                                                                                                                                                                                  Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           671580 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MRPLLVLLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
     GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                 sp_virus:*
sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_bacteriap:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sp_archea:*
sp_bacteria:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                          sp_phage: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sp_fungi: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sp_mhc:*
sp_organelle:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sp_mammal:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sp_human:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sp_invertebrate:*
                                                                                                                                                                                                                                                                                                                                                                                                                                           sp_plant:*
                                                                                                                                                                                                                                                                                                                                                                                                                              sp_rodent:*
                                                                                                                                                                                                                                 Length DB
                                                                                                                           294
194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206047115 residues
    1 Q8R002
Q95JD7
Q95JD7
Q911R
Q911R
Q95J95
Q95J95
Q95J95
Q96D07
Q87EJ5
Q87EJ6
                                                                                                                                                                                                                                 Ħ,
                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  671580
                                                                              Q8r002 mus musculu
Q95mg4 bos taurus
Q95jd7 macaca mula
Q9n178 sus scrofa
Q9n178 sus scrofa
Q9z1k4 rattus norv
Q9d8u4 mus musculu
Q95j95 canis famil
Q9d2v4 mus musculu
Q921s8 mus musculu
Q921s8 mus musculu
Q96d07 homo sapien
O9dcm6 mus musculu
O9es30 mus musculu
O920n0 tamias sibi
O919q7 carassius a
O919q9 cyprinus ca
                                                                   Q96d07 homo sapien
Q8tej5 homo sapien
                                                                                                                                                                                                                              Description
```

4	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
217	217	217	217	217	217	217	217	218	219.5	219.5	219.5	219.5	219.5	220	221.5	221.5	222	222	222.5	223	225	234.5	235	237	238.5	238.5	238.5	241.5
16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.7	16.7	16.8	16.8	16.8	16.8	17.0	17.7	17.7	17.9	18.0	18.0	18.0	18.2
1459	1450	1442	1442	1418	1344	1160	319	182	1453	589	381	326	205	341	248	120	1378	251	322	281	325	173	1017	890	1016	992	583	347
1	13	11	1	6	13	4	σ	11	11	11	ر.	11	11	ഗ	σ	9	Çī	13	U	1	տ	6	11	ы	4	4	4	4
Q62032	Q9YIB4	Q62033	Q62031	Q28396	093419	Q14046	017038	Q8R1P2	Q63079	Q99LL6	Q94399	Q8R066	Q9D0W2	Q20142	Q9TT06	077782	097405	806160	001945	090XP7	017036	062789	Q99K41	077087	Q9Y6C2	Q90G76	Q96G58	Q96ІН6
Q62032 mus musculu	cync	mus		Q28396 equus cabal	093419 gallus gall	Q14046 homo sapien	017038 caenorhabdi	Q8r1p2 mus musculu	Q63079 rattus norv	Q99116 mus musculu	Q94399 caenorhabdi	Q8r066 mus musculu	Q9d0w2 mus musculu		Q9tt06 ovis aries		O97405 haliotis di	Q9i9q8 brachydanio	001945 meloidogyne	Q9qxp7 mus musculu			Q99k41 mus musculu	O	homo	homo	homo	Q96ih6 homo sapien

ALIGNMENTS

Qy	Ъ	Qγ	Дb	Qγ	Ma Ma	QS	Z :	ב ק	2 22	RA	RP	RN	R 3	۶ ۲	ž	×	გ	8	SO	DH	DŢ.	J);	3 U	RESULT Q8R002
121 APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ 180	61 APGEKGEGGRPGLPGPRGEPGPRGEAGPWGAIGPAGECSVPPRSAFSAKRSESRVPPPAD 120	61 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120	1 MRPILALLILGIVSGSPPLDDNKIPSICPGQPGLPGTPGHHGSQGLPGRDGRDGRDGAPG 60	1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG 60	Query Match 94.6%; Score 1254; DB 11; Length 243; Best Local Similarity 93.4%; Pred. No. 5.1e-100; Matches 227; Conservative 7; Mismatches 9; Indels 0; Gaps 0;	SEQUENCE 243 AA; 25420 MW; 498129CD051DB97B CRC64;		EMBL: BC025174: AAH25U58.1;	2-2002) to the	Strausberg R.;	SEQUENCE FROM N.A.		Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.	SEQUENCE FROM N.A.		<pre>%I_TaxID=10090;</pre>		Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Mus musculus (Mouse).	DKFZP586B0621 pro	(TremBirel, 21, Last	(Tremaire) 21	01-Jun-2002 (TremBLrel. 21, Created)	Q8R002 PRELIMINARY; PRT; 243 AA.	LT 1 02

```
RESULT OF SMALL OF SM
RESULT
Q95JD7
ID QS
AC QS
DT 01
DT 01
DT 01
                                                                                                                                                                    日
                                                                                                                                                                                         δ
                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nature 7., Yasukawa 2., Honda N., Matsuda T., Kitajima K.;

"Identification and Adipocyte Differentiation-dependent Expression of the Unique Disialic Acid Residue in an Adipose Tissue-specific Glycoprotein, Adipo 0.";

L. J. Biol. Chem. 276:28849-28856(2001).

EMBL; AF269230; AAK58902.1; -.

InterPro; IPR001073; C1q.

InterPro; IPR001087; Collagen.

Pfam; PF01381; Collagen; 1.

Pfam; PF01391; Collagen; 1.

PROSITE; PS01113; C1Q; UNKNOWN_1.

SEQUENCE 240 AA; 26091 MW; C6253BA803B9A668 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
 Q95JD7
Q95JD7;
Q1-DEC-2001
Q1-DEC-2001
Q1-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-DEC-2001 (TYEMBLrel. 19, Created)
01-DEC-2001 (TYEMBLrel. 19, Last sequence update)
01-JUN-2002 (TYEMBLrel. 21, Last annotation update)
Adipose tissue-specific protein adipo Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q95MQ4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE=21369933; PubMed=11382781;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bovidae; Bovinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Sir
                                                                                                                                                                    235
                                                                                                                                                                                                      233
                                                                                                                                                                                                                                         176
                                                                                                                                                                                                                                                                             174
                                                                                                                                                                                                                                                                                                             117
                                                                                                                                                                                                                                                                                                                                                114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                    58
                                                                                                                                                                                                                                                                                                                                                                                                                      63
                                                                                                                                                                                                                                                                                                                                                                                                                                                         7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                    ĸ
                                                                                                                                                                                                        ĸ
                                                                                                                                                                                                                                                                SIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGD-YIGIYASIKTDSTFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                            GEKGEGGRPGLPGPRGD------PGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSES
                                                                                                                                                                                                                                                                                                                                 RVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGE
                                                                                                                                                                                                                                                                                                                                                                                  GEKGEKGDAGLLGPKGETGDVGMTGAEGPRGFPGTPGRKGEPGEAAYVYRSAFSV-GLET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VLLLLGLAA-GSPPLDDNKIP-SLCPG-HPGLPGTPGHHGSQGLPGRDGRDGRDGRDGAPGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                         AVLFTYDQYQE-KNVDQASGSVLLHLEVGDQVWLQVYEGENHNGVYADNVNDSTFTGFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLLLLALPSHGEDNMEDPPLPKGACAGWMAGIPGHPGHNGT---PGRDGRD-----GTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VFA
                                                                                                                                                                                                                                                                                                             RVTVP-NVPIRFTKIFYNQONHYDGSTGKFYCNIPGLYYFSYHITVYMKDVKVSLFKKDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TPLPFDRVLLNEQGHFDPTTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGQSIASFFQ
                                                                                                                                                                                                        233
 (TrEMBLIEL. (TrEMBLIEL. )
                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32.1%;
   19,
19,
21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Score 425.5; pred. No. 7.1e 35; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35;
   Last
Last
                                     Created)
                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
sequence update) annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.1e-29;
ches 81;
                                                                          ጅ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 6;
   update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Euteleostomi;
cora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of.
                                                                                                                                                                                                                                                                         232
                                                                                                                                                                                                                                                                                                                                                                                116
                                                                                                                                                                                                                                                                                                                                                                                                                    113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                       57
                                                                                                                                                                                                                                        234
                                                                                                                                                                                                                                                                                                             175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                               RESULT
Q9N178
   뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 104
                                                                                                                                                                                                                                                                                                                            Q9N178;
Q9N178;
                                                                                                                                                                                                                                                   01-OCT-2000 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
Type x collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       decreased in parallel with reduced insulin sensitivity progression to type 2 diabetes in rhesus monkeys."; Diabetes 50:1126-1133(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE : SEQUENCE : TISSUE;
TISSUE-ADIPOSE TISSUE;
MEDLINE-2133234; PubMed-11334417;
MEDLINE-2133234; PubMed-11334417;
                                                                                                      SEQUENCE FROM N.A.
MEDLINE-21015405; PubMed-11130976;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProDom; PD000007; Collagen; 1.
PROSITE; PS01113; C1Q; UNKNOWN_1
SEQUENCE 243 AA; 26264 MW; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cercopithecinae;
NCBI_TaxID=9544;
 "Abnormal growth plate function in type X collagen.; Mamm. Genome 11:1087-1092(2000).
EMBL; AF222861; AAF37271.1; ...
                                                                       Nielsen V.H., Bendixen
Shukri N.M., Thomsen B
                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; iPR000087; Collag
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hotta K., Funahashi T.,
Hansen B.C., Matsuzawa 1
                                                                                                                                                               NCBI_TaxID=9823;
                                                                                                                                                                                                                     Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AF404407; AAK92202.1; -. InterPro; IPR001073; Clq.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Macaca mulatta (Rhesus macaque).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Adiponectin.
                                                                                                                                                                                                                                                                                                                                                                                4
                                                                                                                                                                                                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6 VLLLLGLAAGSPPLDDNKIPSLCPGHPG-----LPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                        FLLYHD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TPGEKGEKGDPGLIGPKGDTGETGVTGAEGPRGFPGIQGRKGEPGEGAYVYRSAFSV-GL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APGEKGEGGRPGLPGPRGD------PGPRGEAGPAGPTGPAGECSVPPRSAFSAKRS 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FLVYSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DKAMLFTYDQYQENNVDQA--SGSVLLHLEVGDQVWLQVYGEGERNGLYADNDNDSTFTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GES-IASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGDYIGIYASIKTDSTFSG 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VLLLLALPSHGQDTTTQGPGVLLPLPKGACTGWMAGIPGHPGHNGVPGRDGRD------G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Macaca.
                                                                                                                                                                                 Chordata; Craniata; Vertebrata; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Collagen
                                                                                       с.,
                                                                                                                                                                                                                                                                         15,
15,
21,
                                                                                         Arnbjerg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28;
                                                                                                                                                                                                                                                                       Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 422; DB
Pred. No. 1.4e<sup>o</sup>
28; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49A45DAF2B4613FD CRC64;
                                                      'n
                                                      pigs
                                                                                         J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ortmeyer H.K.,
                                                                                                                                                                                                                                                                                                                                                675
                                                      carrying
                                                                                         Sorensen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 6;
.4e-28;
                                                                                                                                                                                                                                                                                                                                              A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                      ø
                                                                                         C.M., Jensen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                          dominant mutation
                                                                                                                                                                                   Euteleostomi;
Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     adiponectin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       are
```

```
A DO RELEGIO DE LA COMPANIA DEL COMPANIA DEL COMPANIA DE LA COMPANIA DEL COMPANIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
Q921K4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro: IPR001073; C1q.
InterPro: IPR00017; Collagen.
Pfam: PP00386; C1q: 1.
Pfam: PF01391; Collagen: 8.
PRINTS: PR00007; COMPLEMNTC1Q.
PRODOM: PD000007; Collagen: 2.
SMART: SM00110; C1Q: 1.
PROSITE: PS01113; C1Q: 1.
                                                                                                                                            failures of chondrocyte patterning and type X collagen expression.";
Int. J. Dev. Biol. 44:309-316(2000).
EMBL; AJ131848; CAA10518.1; .
InterPro; IPR001073; Clq.
InterPro; IPR000087; Collagen.
Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen; 3.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; ClQ; 1.
PROSITE; PS01113; ClQ; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-1999 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
Collagen alpha 1 type X
                                                                                                                                                                                                                                                                                                                                                                                                  Marks S.A., Lundmark C., Christersson C., Wurtz T., Odgren P.R. Seifert M.F., MacKay C.A., Mason-Savas A., Popoff S.E.; "Endochondral bone formation in toothless (osteopetrotic) rats:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=20310874; PubMed=10853827;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-1999 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9Z1K4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9Z1K4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99;
                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LTDNDQVWLQLPNAGSNGLYSSEYVHSSFSGFLV 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GNPGLPGPKGDPGIGGPPGLPGPVGPAGAKGVPGHNGEAGPRGAPGIPGTRGPIGPPGIP 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGIFTCRIPGIYYFSYHIHVKGTHAWVGLYKNGTPVMYTYDEYVKGYLDQA--SGSAILD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVR 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VPPEGFVKEGQRAFVSANQGVTGMPVSAFTVILSKAYPAIGAPIPFDKILYNGQQHYDPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GFPGSKGDPGNPGPPGPAGIATKGLNGPTGPPGPPGPKGHAGEPGLPGPPGPPGPPGQ-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               675 AA; 65447 MW;
                                                                                                           295
       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                        AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -RSAFSAKRSESRVP-------PPSDAPLPFDRVLVNEQGHYDAV 139
                                                                                                        30012 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31.48; 36.18;
                            30.3%; Score 402; 36.7%; Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10, Created)
10, Last sequence update)
21, Last annotation update)
(Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 415.5;
Pred. No. 1.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                        FF43B1548028813E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26397B10310383F9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GPRGDPGPRGEA-----GPAGPTGPAGECS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7e-27
                               .3e-27;
                                                      DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6;
                                                    Length 295;
     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74
     7;
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                            RA Kawai J. Shinagawa A. Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Arakawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aitawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
Blake J., Boitelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
Lyons P., Marchionni L., Mashima J., Mazazarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Sasaki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
Havashitaki Y., Storch K.-F.,
Query Match
Best Local S
Matches 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-2001 (TrEMBLrel.
01-JUN-2001 (TrEMBLrel.
01-JUN-2001 (TrEMBLrel.
1810033K05R1k protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9D8U4
Q9D8U4;
                                                                      PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PROSTITE; PS01113; C1Q; 1.
SEQUENCE 294 AA; 30865 MW;
                                                                                                                                                 Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen; 2.
                                                                                                                                                                                MGD; MGI:1916433; 1810033K05Rik.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                           Nature 409:685-690(2001).
EMBL; AK007683; BAB25187.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=C57BL/6J; T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse)
                                                                                                                                                                                                                                                                               "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                    łayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L810033K05RIK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25
                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PSLCPGH-----PGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGE-----KGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LYSSEYVHSSFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IYASIKTDSTFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----PRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGPPGRPGPRGHTGEPGLPGPPGPPGPPGPPSQAVIPDGFTKSGQRPRLSGMPLVSANQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PKGVPGHNGEAGPRGEPGIPGTRGPIGPPGIPGFPGSKGDPGKPGAPGPAGIVTKGLNGP 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HVKGTHVWVGLYKNGTPTMYTYDEYSKGYLDQA--SGSAIMELTENDQVWLQLPNAESNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TVYRASLQFDLVKNG-ESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VTGMPVSAFTVILSKAY--PAVGAPIPFDEILYNRQQHYDPRSGIFTCKIPGIYYFSYHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGRPGLPGPR----GDPGPRGEAGPAGPTGPAGECSVP--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=PANCREAS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata;
Rodentia;
                 29.8%; Score 395; 35.9%; Pred: No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17,
17,
17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                        6D3905AE7C19E6FA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               294
 .7e-26;
les 93;
                                   DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                          CRC64;
                                   Length 294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
```

Conservative

Mismatches

Indels

44;

Gaps

QΥ

밁

δ

ρy

δÃ

Š

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Вþ
                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        095J95
095J95;
095J95;
01-DEC-2001 (TrEMBLrel. 19
f 01-DEC-2001 (TrEMBLrel. 19
T 01-JUN-2002 (TrEMBLrel. 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF001386; C1q: 1.
Pfam; PF001391; Collagen; 1.
ProDom; PD000007; Collagen; 1.
PROSITE; PS01113; C1Q; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APMI.
Canis familiaris (Dog).
Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Canidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Regulation of Adiponectin gene expression in the fat-f Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases EMBL, AF417206; AAL09702.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
TISSUE-ADIPOSE TISSUE;
Kabir M., Ananthnarayan S., Ionut V.,
Dea M.K., Bergman R.N.;
                                             178
                                                                                                                                    118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                148
    160
                                                                                         103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         117
                                                                                                                                                                               44
                                                                                                                                                                                                                        67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                 4
                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                    ch 28.2%; l Similarity 42.3%; 90; Conservative 2
                                                                                                               PSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIAS
                                                                                                                                                                                                      EGGRPGLPGPRGD------PGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPP
                                                                                                                                                                                                                                                                    VLLPLPKGA-
                                                                                                                                                                                                                                                                                      LFTYDQYQEKNVDQASGSVLLHLEVGDQVWLQV
                                           FFQFFGGWPKPA-SLSGGAMVRLEPEDQVWVQV
                                                                                      P-NVPIRFTKIFYNLQNHYDGTTGKFHCNIPGLYYFSYHITVYLKDVKVSLYKKDK--AM
                                                                                                                                                                           EKGDPGLVGPKGDTGETGVTGVEGPRGFPGTPGRKGEPGESAYVHRSAFSV-GLESRITV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VHATVYRASLQFDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NGLFYDPYWTDSLFTGFLIYAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IGI-YASIKTDSTFSGFLVYSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YDITLANKHLAIGLVHNGQYRIRTFDANTGNHDVA--SGSTILALKEGDEVWLQIFYSEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPCSCGSSRAKSAFSVAVTKSYPRERLPIKFDKILMNEGGHYNASSGKFVCSVPGIYYFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GEEGPPGRTGNRGKQGPKGKAGAIGRAGPRGPKGVSGTPGKHGTPGKKGPKGKKGEPGLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GEKGEGGRP---GLPGPRGDPGPRGEAGPAGP---TGPAGECSVPPRSAFSAKRSESRVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PQLVCSLPG
                                                                                                                                                                                                                                                                                                                                                                                                                                             194
194 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                             194
20890 MW;
                                                                                                                                                                                                                                                                 19,
19,
21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----PQGPPGPPGAPGSSGVVGRMGFPGKDGQDGQDGDRGDS
                                                                                                                                                                                                                                                                                                                                                    Score 373.5;
Pred. No. 1.6e
22; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                        3AA3D947D187AF9A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -PLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kim S.P.,
                                                                                                                                                                                                                                                                                                                                                    .6e-24;
les 66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
    192
                                           209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Van Citters G.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fat-fed
                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Euteleostomi;
Canis.
                                                                                                                                                                                                                                                                                                                                                      35;
                                                                                                                                                                                                                                                                 -GTPGEKG
                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                      159
                                                                                                                                  177
                                                                                                                                                                                                                      117
                                                                                                                                                                                                                                                               43
                                                                                                                                                                                                                                                                                                        66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
09024
1D 2V4
1D 2V9
2D 01-J
DT 01-J
D
                               Ş
                                                                                    밁
                                                                                                                             δÃ
                                                                                                                                                                           밁
                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Salto T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Blake J., Boffelli D., Hofmann M., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA Hayashtaki Y., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O9D2V4
O9D2V4;
OJD2V4;
OJD2V4;
O1-JUN-2001 (TrEMBLrel. 17, Created)
O1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
O1-JUN-2001 (TrEMBLrel. 17, Last annotation updat
n-collagen, type VIII, alpha 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nature 409:685-690(2001).
EMBL; AK018742; BAB31383.1; -.
MGD; MGI:88463; Col8a1.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINTS; PRO0007; COMPLEMNTCIQ.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
SEQUENCE 744 AA; 73581 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-KIDNEY;
MEDLINE-21085660; PubMed-11217851;
Kawai J., Shinagawa A., Shibata K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M.
Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Rodentia;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hayashizaki Y
                                                                                                                             146
                                         205
                                                                                      656
                                                                                                                                                                             596
                                                                                                                                                                                                                                                                                                                                                      476
                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                           75
                                                                                                                                                                                                                                                                                                                                                                                             24
                                                                                                                                                                                                                                                                                                                                                                                                                                          93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                             QVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPEDQ
                                                                                                                                                                                                                                                                                                                                                                          VFLQMPSEQAAGLYAGQYVHSSFSGYLLY
                                                                                      EVPGVYYFAYHVHCKGGNVWVALEKNNEPMMYTYDEYKKGFLDQA--SGSAVLLLRPGDQ
                                                                                                                                                                           KPPHAYAGKKGKHGGPAYEMPAFTAELTVPFPPVGAPVKFDKLLYNGRQNYNPQTGIFTC
                                                                                                                                                                                                                    PPRSAFSAKR---
                                                                                                                                                                                                                                                               PGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPTPSPQGEYLPDMGLGIDGV
                                         VWVQVGVGDYIGIYASIKTDSTFSGFLVY
                                                                                                                                                                                                                                                                                                                                                    VPGLLGPKGEPGIPGDQGLQGPPGIPGIVGPSGPIGPPGIPGPKGEPGLPGPPGFPGVGK 535
                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                      -----GPRGDPGPRGEAGPAGPTGP------
                                                                                                                                                                                                                                                                                                                                                                                                                                                             28.0%;
                                                                                                                                                                                                  ------SESRVP-PPSDAPLPFDRVLVNEQGHYDAVTGKFTC 145
                                                                                                                                                                                                                                                                                                                                                                                                                                          32;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 370.5; DB 1
Pred. No. 1.4e-23;
2; Mismatches 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; I
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C659BDCCBCD6EB9C CRC64;
                                         233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           update)
                                                                                                                                                                                                                                                                                                                                                                                                                                        83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Itoh M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fukuda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ishii Y.,
Fukuda S.,
amanaka I.,
Saito R.,
```

61;

Gaps

74

----AGECSV 100

595

204 655

밁 Qy 밁 Q 밁 Ş 뮹 Ş

```
δ
                                                                                                                                                                                                                                                                                                    D
D
                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρy
                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 93
                                                                                                          Q96D07 PRELIMINARY; PR
Q96D07; O1-DEC-2001 (TrEMBLrel. 19, Crea
01-DEC-2001 (TrEMBLrel. 19, Last
01-JUN-2002 (TrEMBLrel. 21, Last
Hypothetical 73.4 kDa protein.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Cr
Mammalia; Eutheria; Primates; Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q921S8;
01-DEC-2001
01-DEC-2001
01-JUN-2002
         Strausberg R.;
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ
EMBL; BC013581; AAH13581.1;
InterPro; IPR001073; Clq.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q921S8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 7.
PROSITE; PS01113; C1Q; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COL8A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Procollagen,
                                                                  TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10090;
                                                                             SEQUENCE FROM N.A.
                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                         10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         itted (JUL-2001) to the EMBL/GenBank/DDBJ databases; BC011061; AAH11061.1; -. MGI:88463; Col8a1.
                                                                                                                                                                                                                                                         714
                                                                                                                                                                                                                                                                               205
                                                                                                                                                                                                                                                                                                     656
                                                                                                                                                                                                                                                                                                                          146
                                                                                                                                                                                                                                                                                                                                                  596
                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                              536
                                                                                                                                                                                                                                                                                                                                                                                                                                     476 VPGLLGPKGEPGIPGDQGLQGPPGIPGIVGPSGPIGPPGIPGPKGEPGLPGPPGFPGVGK
                                                                                                                                                                                                                                                                                                                                                                                                                    75
                                                                                                                                                                                                                                                                                                                                                                                                                                                              24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                         VFLQMPSEQAAGLYAGQYVHSSFSGYLLY 742
                                                                                                                                                                                                                                                                                                                        QVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPEDQ
                                                                                                                                                                                                                                                                              VWVQVGVGDYIGIYASIKTDSTFSGFLVY
                                                                                                                                                                                                                                                                                                    EVPGVYYFAYHVHCKGGNVWVALFKNNEPMMYTYDEYKKGFLDQA--SGSAVLLLRPGDQ
                                                                                                                                                                                                                                                                                                                                               KPPHAYAGKKGKHGGPAYEMPAFTAELTVPFPPVGAPVKFDKLLYNGRQNYNPQTGIFTC
                                                                                                                                                                                                                                                                                                                                                            PPRSAFSAKR-------SESRVP-PPSDAPLPEDRVLVNEQGHYDAVTGKETC
                                                                                                                                                                                                                                                                                                                                                                                          PGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPTPSPQGEYLPDMGLGIDGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                           IPSIC--PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel.
(TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73621 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28.0%; Score 370.5; DB 1 34.6%; Pred. No. 1.4e-23;

    Created)
    Last sequence update)
    Last annotation updat
    alpha 1

                                                                                                                                                                                                                                                                                                                                                                                                        -GPRGDPGPRGEAGPAGPTGP------AGECSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32;
                                                                                                                                                       Created)
Last sequence up
                                                                                                             Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BF7A7FD79D8463AA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                    744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          744 AA.
                                                                                                                                                                                                                                                                              233
                                                                                                                                                                                                    A
                                                                                                                                                                   update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 11; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           update)
                                                                                                                                                        update)
                                             databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                     145
                                                                                                                                                                                                                                                                                                                                                                                           595
                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                        535
                                                                                                                                                                                                                                                                                                     713
                                                                                                                                                                                                                                                                                                                          204
                                                                                                                                                                                                                                                                                                                                              655
```

```
RESULT 11
QRIEJ
QRIEJ
LO QRIEJ
AC QRIEJ
AC QRIEJ
DI 01-JU
DI 1-JU
DI 1-J
                                                                                                                                                                  В
                                                                                                                                                                                                     γ
                                                                                                                                                                                                                                                           밁
                                                                    밁
                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SQ
                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF01391; Collagen; 7.

ProDom; PD000007; Collagen; 2.

PROSITE; PS01113; C1Q; UNKNOWN_1.

Collagen; Hypothetical protein.

Collagen; Hypothetical protein.

SEQUENCE 744 AA; 73364 MW; 2BC1B0955DE2C9A3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (JAN-2002) to the EMBL; AK074129; BAB84955.1; NON_TER 1 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-SPLEEN;
Jikuya H., Tak
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pure (Human).
Homo sapiens (Human).
Homo sapiens (Human).
""karyota; Metazoa; Chordata; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence up
01-JUN-2002 (TrEMBLrel. 21, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q8TEJ5
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    spieen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FLJ00201 protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8TEJ5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "The nucleotide
                        172
                                                                       586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   475 VPGLLGPKGEPGIPGDQGLQGPPGIPGIGGPSGPIGPPGIPGPKGEPGLPGPPGFPGIGK 534
                                                                                                                                                                                                                                                                468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             595 VKPPHAYGAKKGKNGGPAYEMPAFTAELTAPFPPVGAPVKFNKLLYNGRQNYNPQTGIFT
                                                                                                                                                                                                                 71
                                                                                                                                                                                                                                                                                      11 GLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGRDGAPGAPGEKGEGGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24 IPSLC--PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP-----
                                                                                                                                                                                                                                                                                                                                                           95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90;
                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                             GLQGPAGPIGPQGLPGL-KGEPGLPGPPG-EGRAGEPGTAGPTGPPGVPGSPGTTGPPGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                              PGLPGPRGDPGPRGEAGPAG---PTGPA------
                           ė
                                                                    ---PFPASGMPVKFDRTLYNGHSGYNPATGIFTCPVGGVYYFAYHVHVKGTNVWVALYKN
                                                                                                SRVP-PPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKN
                                                                                                                                                                  PGPPGPPGAPGAFDETG IAGLHLPNGGVEGAVLGKGGKPQFGLGELSAHATPAFTAVLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RVFLQMPSEQAAGLYAGQYVHSSFSGYLLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QVWVQVGVGDYIGIYASIKTDSTFSGFLVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CEVPGVYYFAYHVHCKGGNVWVALFKNNEPVMYTYDEYKKGFLDQA--SGSAVLLLRPGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VPPRSAFSAKRSESRVP---------PPSDAPLPFDRVLVNEQGHYDAVTGKFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPPTPPPQGEYLPDMGLGIDG
705 AA; 67430 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Takano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27.8%; sllarity 33.3%; Conservative 3
                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     no J., Nom
                                                                                                                                                                                                                                                                                                                                                                               27.4%; Score 363.5; 39.3%; Pred. No. 5.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nomura N., Kikuno
nce of a long cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GPRGDPGPRGEAGPAGPTGP------
                                                                                                                                                                                                                                                                                                                                                        25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 368; DB 4;
Pred. No. 2.3e-23;
4; Mismatches 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      07DB85A65A948ED3 CRC64;
                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R., Nagase T., clone isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   233
                                                                                                                                                                                                                                                                                                                                                                                 .2e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         update)
                                                                                                                                                                                                                                                                                                                                                                                                       DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     update)
                                                                                                                                                                                                                                                                                                                                                        95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                              GECSVPPRSAFSAKRSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ohara
                                                                                                                                                                                                                                                                                                                                                                                                          705;
                                                                                                                                                                                                                                                                                                                                                           27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -AGECS
                                                                       642
                                                                                                                      171
                                                                                                                                                                     585
                                                                                                                                                                                                              112
                                                                                                                                                                                                                                                                525
                                                                                                                                                                                                                                                                                                            70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6;
```

₿

update)

and its Furukawa on of a nov

awa S.; novel gene, possible in

CORS26

ij

Muridae;

Euteleostomi; Murinae;

Mus

```
۰ ۵
                                                             밁
                                                                                         õ
                                                                                                                                           밁
                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Alzawa K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Stabbli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Schrimi L.M., Stabbli F., Suzuki R., Tomita M., Wagner L.,
Raskai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boitelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Lyons P., Marchionni L., Mashima J., Hume D.A., Kamiya M., Lee N. H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
Rasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Hayashiyashiy Y.,
                                                                                                                                                                                                                                                      Query Match
Best Local :
                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                    Pfan; PFU1551,
PRINTS; PRO0007; COMPLEMINTS;
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                  MGD; MGI:88223; Clqa.
InterPro; IPR001073; Clq.
InterPro; IPR000087; Collagen.
Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
Complement component 1, q subcomponent, alpha polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AK002655; BAB22262.1; EMBL; BC002086; AAH02086.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Functional annotation of Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9DCM6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9DCM6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGD; MGI:88223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-21085660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12
                        143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               701
                                                             94
                                                                                                    89
                                                                                                                                              36
                                                                                                                                                                                       29
                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               £ ::
                   FTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQFFGGWPKPA--
                                                                                                                                              PGNPGRPGRPGLKGERGEPGAAGI -- RTGIRGFKGDPGESGPPGKPGNVGLPGPSGPLGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7
                                                             SGPQGLKGVKGNPGNIRDQPRPAFSAIRQN---PMTLGNVVIFDKVLTNQESPYQNHTGR
                                                                                                    AGPTGPAGECSVP-----
                                                                                                                                                                                     PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shinagawa A., Shibata K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NVPATYTYDEYKKGYLDQA--SGGAVLQLRPNDQVWVQMPSDQANGLYSTEYIHSSFSGF 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (JAN-2001) to the EMBL/GenBank/DDBJ databases. 02655; BAB22262.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               702
                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N.A.
'6J; TISSUE-KIDNEY;
'660; PubMed-11217851;
'chibata K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
Rodentia;
                                                                                                                                                                                                                                                      23.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of a full-length mouse
                                                                                                                                                                                                                              24;
                                                                                                                                                                                                                            Score 314; DB
Pred. No. 2.7e
24; Mismatches
                                                                                         -PRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                    41C2066D49592020 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yoshino M., Itoh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                                                                                                                                      DB 11;
2.7e-19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                   85
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA collection.";
                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a M., Isaa
J., Fukuda /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Storch K.-F.,
                                                                                                                                                                                                                                 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         жн
к.,
                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ħ;;
                                                             150
                                                                                                  142
                                                                                                                                              93
                                                                                                                                                                                       88
                 RESULT 14
Q920N0
ID Q920N
AC Q920N
DT 01-DE
DT 01-DE
DT 01-JU
DE HP-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
Q9ES30
                                                                                                                                                                                                                                 뮹
                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                 뫄
                                                                                                                                                                                                                                                                                                                                                       QY
                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCOMPAND ACCOMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                  01-DEC-2001
01-DEC-2001
01-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   encoding a putative secretory protein skeletal development.";
J. Biol. Chem. 276:3628-3634(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2001 (TrEMBLrel. 16, 01-MAR-2001 (TrEMBLrel. 16, 01-DEC-2001 (TrEMBLrel. 19,
                                                                                                  Q920N0;
                                                                                                                          Q920N0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PRODOO7; COMPLEMNTCIQ.
SMART; SMODILO; CIQ; I.
PROSTIE; PSOILI3; CIQ; I.
SEQUENCE 246 AA; 26828 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00386; Clq; 1. Pfam; PF01391; Collagen; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse),
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=21264842; PubMed=11071891;
Maeda T., Abe M., Kurisu K., Jikko A., I
"Molecular cloning and characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORS OR CORS26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9ES30;
01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9ES30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                239
                                                                                                                                                                                                                                                                        229
                                                                                                                                                                                                                                                                                                                 183
                                                                                                                                                                                                                                                                                                                                                           169
                                                                                                                                                                                                                                                                                                                                                                                                     125
                                                                                                                                                                                                                                                                                                                                                                                                                                              113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 LLVLLLLGLA-----AGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGR 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                            VKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFS 228
                                                                                                                                                                                                                                 GFLLF
                                                                                                                                                                                                                                                                        GFLVY 233
                                                                                                                                                                                                                                                                                                                    MHNGNTVFSMYSYETKGKSDTS-SNHAVLKLAKGDEVWLRMGNG
                                                                                                                                                                                                                                                                                                                                                                                                                                   SRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAV----HATVYRASLQFDL 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DGRDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSE 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VLAGGTVLQLRRGDEVWIEXDPAKG-RIYQGTEADSIFSGFLIF 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVY 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NGNNGATGHEGAKGE-----KGDKGDLGPRGERGQHGPKGEKGYPGVPPELQIAFMASL 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLPLLFLPFCLCQDEYMESPQAGGLPPDCSKCCHGDYGFRGYQGPPGPPGPPGIPGNHGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FICAVPGFYYF---
                                                                                                                                                                                                                                                                                                                                                                                                     ATHE SNONSGIIES SVETNIGNEEDVMTGREGAPVSGVYFFTE SMMKHEDVEEVYVY--L
                                     (TrEMBLrel. (TrEMBLrel. (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat-containing sequence of 26kDa protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20.4%;
                                       19,
19,
21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----NFQVISKWDLCLFIKSSSGGQPRDSLSFSNTNNKGLFQ 199
                                       Last annotation update)
                                                             Last
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update;
Last annotation update
                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 270.5;
Pred. No. 1.5e
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          42A481B3E9F48F7E CRC64;
                                                             sequence update)
```

1.5e-

Indels Length

27;

Gaps

70

DB 11; 107;

196

B

ALHGDHORFSTFA

238

```
RESULT

OPIGOT

ID

OPIGOT

OP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q919Q7;
01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
01-JUN-2002 (TremBLrel lectin precursor (Fragment).
                                                                                                                       "The homologue of mannose-binding lectin in the carp is expressed at high level in spleen, and the deduced structure predicts affinity for galactose."; Immunogenetics 51:955-964(2000).

EMBL; AF227739; AAF63470.1; -.

HSSP; P35247; 1808.
                                                                                                                                                                                                                                                                                                                                                                                                                 Carassius auratus (Goldfish).
Eukaryota; Metazoa; Chordata;
Actinopterygii; Neopterygii;
Cyprinidae; Carassius.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     091907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AB067779; BAB68362.1; -. InterPro; IPR001073; Clq. InterPro; IPR000087; Collagen.
InterPro; IPR000087; Collagen.
InterPro; IPR001304; Lectin_C.
Pfam; PF01391; Collagen; 2.
Pfam; PF00059; lectin_C; 1.
SMART; SM00034; CLECT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tamias sibiricus (Siberian chipmunk) (Asian chipmunk).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Sciuridae; Sciurinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MBL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=21488336; PubMed=11602349;
Ono M., Hosoe Y., Azuma S., Shoji M.,
                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gene 277:121-127(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Takamatsu N.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=64680;
                                                                                                                                                                                                                                                                     Vitved L., Holmskov U., Koch C.,
                                                                                                                                                                                                                                                                                               MEDLINE=20456722; PubMed=11003389;
                                                                                                                                                                                                                                                                                                                             ISSUE=LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=7957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "HNF-1 regulates the liver-specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PF00386; C1q; 1.
PF01391; Collagen; 1.
TE; PS01113; C1Q; UNKNOWN_1.
NCE 196 AA; 21330 MW; B0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPSDAPLPFDRVLYNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAPGEKGEGGRPGLPGPRGDPGPRGEA---GPAGPTGPAGECSVPPRSAFSAKRSESRVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGFLISS 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGFLVYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EKHQLSKNEYENAS - - - GAMIMPLRQGDKVWLE - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SFFQFFGGWPKPASLSGGAMVR-LEPEDQVWVQVGVGDYIGIYASIKTDST-----F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPSE-PVVFTEVLYNTQRDLKASTGVFNCVEPGNYHFSFDVELYHCKVKIGLMKNHIQVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPPGPVGYPGVPGVPGPRGPPGQPGAAGRPGDPGPKGPSVKCPCRERSAFTVKFS-GRLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             234
                                                                                                                                                                                                                                                                                                                                                                                                                                             Chordata; Craniata;
pterygii; Teleostei;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 266.5; DB 11;
Pred. No. 2.5e-15;
""amatches 67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B07D17EBFA94D2FD CRC64;
                                                                                                                                                                                                                                                                   Teisner B., Hansen S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nara K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                             Vertebrata; Euteleostomi;
Ostariophysi; Cypriniform
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 11; Length 196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kondo N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ٥f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -ADVETEEPDQAKVVIYF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                 family
                                                                                                                                                                                                                     primary
                                                                                                                                                                                                                                                                                                                                                                                                                                             Cypriniformes;
                                                                                                                                                                                                                                                                     Skjodt K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         chipmunk HP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shiba
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27;
                                                                                                                                                                                                                                            Cyprinidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     83
```

Search completed: June 13, Job time: 34 secs

2003,

16:01:17

```
γ
                                                                                                                                                    δÃ
  밁
                   Ωy
                                          밁
                                                             ρy
                                                                                       밁
                                                                                                                                망
                                                                                                                                                                            밁
                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                      DR FTT SQ
                                                                                                                                                                                                                         Query Match
Best Local S
Matches 80
                                                                                                                                                                                                                                                                               Lectin;
NON_TER
SIGNAL
VARIANT
                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                         PROSITE; PS00615; C_TYPE_LECTIN_1; UNKNOWN_1.
PROSITE; PS50041; C_TYPE_LECTIN_2; 1.
                                            147
                                                                  179
                                                                                        111
195
                    228 --SGFLVYSDW
                                                                                                          119 SDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASF
                                                                                                                                 54
                                                                                                                                                      64
                                                                                                                                                                                                                                                                                                   ; Fignal.
; Signal.
1
                                                                                                                                                                                                                         ;08
                                                                                                                                                                                                  4
                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                         TEGKQLTFTNW
                                                                FQFFGGWPKPASLSGGAMV--RLEPEDQVWVQV----GVGD---YIGIYASIKTDSTF--
                                                                                       ----ATFEK--VSSVCHFRKV------GQKYYITDGVVG----NFD-----QGLKSC
                                                                                                                                EKGESGVSVQGPPGKAGPPGTAGEKGERGPSGPQGSPGSESVLESLKSEIQQLKAKI---
                                                                                                                                                      EKGEG - - - - - GRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPP
                                                                                                                                                                            LLLQFALQLLDGAEPQNLN----CPAYGGVPGTPGHN---GLPGRDGRDGKDGAIGPKG
                                                                                                                                                                                                                                                                     246 AA;
                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                145
                                                                                                                                                                                                                                                                                           Δ
                                                                                                                                                                                                                                                                  1
13 P
145 S
25709 MW;
                                            ----GGTMVSPRTSAENQALLKLVVSSGLGSKKPYIGV-TDRKTEGQFVD
                      236
                                                                                                                                                                                                                                   31.9%;
                                                                                                                                                                                                                                               19.1%;
                                                                                                                                                                                                                         33,
                                                                                                                                                                                                                       Score 252.5; DB 13, Pred. No. 5.2e-14; 3; Mismatches 73;
                                                                                                                                                                                                                                                                               s
'-
                                                                                                                                                                                                                                                                                POTENTIAL.
S -> F.
                                                                                                                                                                                                                                                                     AB692282D289D0D5 CRC64;
                                                                                                                                                                                                                                             DB 13;
                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                         65;
                                                                                                                                                                                                                       Gaps
                                             194
                                                                                                           178
                                                                                                                                                      118
                                                                                       146
                                                                                                                                                                            53
                                                                                                                                                                                                  63
                                                                  227
```

14;

THIS PAGE BLANK (USPTO)

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -Q-/cgn2_1/USPTO_spool/US0994494/runat_13062003_150047_24252/app_query.fasta_1.391
-DB-EST -QFMT=fastap -SUFFIX=rst -MINNATCH-0.1 -LOOPEXT-0
-UNITS-bits -START-1 -END-1 -MATRIX-blosum62 -TRANS-human40.cdi -LIST-45
-DOCALIGN-20 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15 -MODE-LOCAL
-OUTFMT=pto -NORM-ext -HEAPSIZE-500 -MINLEN-0 -MAXLEN-200000000
-USER-US0944944 GCGN_1 _1_1906_errunat_13062003_15047_24252 -NCPU-6 -ICPU-3
-NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -DSPBLOCK-100 -LONGLOG
-DSY_TIMEOUT-120 -WARN_TIMEOUT-30 -THREADS-1 -XGAPEXT-0.5 -FGAPOP-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Command line parameters:
-MODEL=frame+_p2n.model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -YGAPOP=10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 p2n.model -DEV-xlh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          June 21, 2003, 16:33:24; Search time 1719 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16154066 seqs, 8097743376 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-42
1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MRPLLVLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                    em_estmu:*
em_estov:*
em_estpl:*
                                                                                                                                                                                                                                                                                                                                                                     gb_est1:*
                                                                                                                                                                                                                                                                                                                                                                                            em_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     em_estin:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          em_esthum:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em_estba:*
                                                                                                                                                                                                                                                                                                                                                                                                                    em_estro:*
                                                                                                              em_gss_pln:*
em_gss_vrt:*
                                                                                                                                                        em_gss_hum:*
em_gss_inv:*
em_gss_pro:
                      em_gss_other:*
                                               em_gss_mus:*
                                                                   em_gss_fun:*
em_gss_mam:*
                                                                                                                                                                                                   gb_gss:*
                                                                                                                                                                                                                       em_estom:*
                                                                                                                                                                                                                                         em_estfun:*
                                                                                                                                                                                                                                                                                      gb_est4:*
                                                                                                                                                                                                                                                                                                             gb_est3:*
                                                                                                                                                                                                                                                                                                                          gb_htc:*
                                                                                                                                                                                                                                                                                                                                                     qb_est2:*
                                                                                                                                                                                                                                                                  3b_est5:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -YGAPEXT=0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -DELOP-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (without alignments) 2289.414 Million cel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -DELEXT-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             32308132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cell updates/sec
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	₽ ₽	ID	Description
, ₁	64		844	10	093	09370 60
ر ا	1138		1093	14	2456	24569 AGE
A (1062 5	80.4 0.4	778	1 L	BF098614	200
с т .	1034	8 :	1154	13	M54754	M 5
σ.	1024.5	7	869	13	6319	~
7	1019	76.9	941	13	182189	38I
8	1006	G	879	. 13	182094	181
9	'n	4 .	887	13	1149006	149
10	982.5		842	13	Η	39I
11	917	9	846	13	BI458455	10
12	m	7	1623	14	BM926477	
13	(.)		567	ш	вм021381	M
14	68	Š	936	12	BF540263	
بر ،	827	Ñ	870	9	4	45
C 15	754	ָ ה	640	1 2	BM4 374 98	
18	717	٠,	5 G	י נ	RM488918	BM488918 ngm2n nk0
19	713	53.8	630	12	BG706609	BG706609 602672994
20	703	Ψ	792	13	в1770921	177
21	7	۲	565	12	G	~
0 22 22	674	0	801 108	ין ב ש ני	BI490880	
24		50.5	867	13	BI818537	BI818537 603033057
25	63	7.	532	12	Ę	F7:
26	Ν	7.	664	14	Ó	
27		46.2	564	14	BQ419213	
28	609	Ö	655	14	Ö	Q285731 faa29c04
29	9		410	12	BE861753	61753 UI-M-AN
3 30	1 00	ىق د	547	12	E	E722922 191347 M
3 5	3 ~	نا د	735	1 4	\sim	0140353 61-
ى د د	n ~	ى ز	400		BE016067	5067 BB3
ω (4.	567.5	42.8	418	۽ ه	σ·	vq34c03.r
35	56	Ñ	628	14	28538	5387 faa31e0
36	٠	Ľ	535	13	в1705095	5095 fr63e0
37	549	٠,	613	13	4295	2952 fr01b07.
38	4	۲	613	13	4284	42844 fq9
9	530	٥.	517	4	6695	66954 132
2 4 2 4	u		707	1 <u>1</u>	360361	
		9	200	12		F340559 6020
43	52		000		34055	32 AGEI
	52	8	1349	14	BP340559 BQ673882	UI-R-C2-
C 44		7.8	1349	914	54055 67388 70779	

ALIGNMENTS

REFERENCE AUTHORS TITLE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION		DEFINITION	LOCUS	BE309370	RESULT 1
<pre>1 (bases 1 to 844) NIH-MGC http://mgc.nci.nih.gov/. National Institutes of Health, Mammalian Gene Collection (MGC)</pre>	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	Mus musculus	house mouse.	EST.	BE309370.1 GI:9167454	BE309370	mRNA sequence.	601094718F1 NCI_CGAP_Mam5 Mus musculus cDNA clone IMAGE: 3489340 5',	BE309370 844 bp mRNA linear EST 26-OCT-2000		

```
δÃ
  Ş
                           В
                                          δã
                                                                          멍
                                                                                                                            뫄
                                                                                                                                                δõ
                                                                                                                                                                               밁
                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-42 (1-243) x BE309370 (1-844)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               М
..
   161
                                                     141
                                                                              361
                                                                                                                                                        101
                                                                                                                                                                                  241
                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Robin Humphre
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov column: 05 High quality sequence stop: 747.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished (1999)
Contact: Robert St
                                                                                                                                                                                                                                                                                                                                     ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                         GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 160
                                                                             ACACCCCTACCTTTCGACCGTGTGCTGCTAAATGAGCAGGGCCATTACGACCCCACTACT
                                                                                         AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr 140
                                                                                                                            AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro 80
                                                                                                                                                                                                                                                                                    CATGGCAGCCAAGGCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGA
                                                                                                                                                                                                                                                                                             HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                     MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                   GCTCCGGGAGAGAAAGGCGAGGGCGGGAGACCGGGACTACCTGGCCCACGTGGGGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                       ATGAGGCCACTTCTTGCCCTTCTGCTTCTGGGTCTGGTCAGGCTCTCCTCCTCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Organ: mammary; Vector: pCMV-SPORT6; Site_1: Sall Site_2: Not1; Cloned unidirectionally. primer: Oilgo dy Library constructed by Life Technologies. Investigators providing samples: Lothar Hennighausen/Robin Humphreys,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /tissue_type="tumor, gross tissue"
/dev_stage="7 months"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="IMAGE:3489340"
/clone_lib="NCI_CGAP_Mam5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Mus musculus"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.84e-75
1164.50
92.21%
88.52%
87.89%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               253 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 844
216
9
16
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Robin Humphreys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SalI;
go dT.
                                                                           420
                          480
                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
BM924569
Best Local Similarity:
Query Match:
                                                   Pred. No.:
                                                               Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                         Percent Similarity:
                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  roValPhe
                                                                                                    197
                                                                                                    ø
```

```
541 TATTTTGGGGGGTGGCCCAAGCCAGCTCGCTCTCAGGGGGGTGCGATGGTAAGGCTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostor Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1093)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5', mRNA sequence.
BM924569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGENCOURT_6767665 NIH_MGC_116 Hc 5', mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bloscience Corporation Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM924569.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TILELYSThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSer-SerP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProGluAspGlnValTrpVal-GlnValGlyValGlyAspTyrIleGlyIleTyrAlaSe 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ate: LLAM12808 row: m column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGAGGACCAGGTGTGGGTGCCGGGTGGGCGTGGGTGATTACATTGGCATCTATGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            quality sequence stop: 590.
                                                                                                                                                                                             /note="Organ: pooled colon, kidney, stomach; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: ECORV (destroyed); RNA source anonymous pool of 3 colons, age 26 yo male, 49 yo female, 71 yo male colon; 46 yo male kidney, and pool of 2 stomachs, 62 yo male and 70 yo female. Library is oligo-dr primed and directionally cloned (EcorV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 023. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5760942"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="NIH_MGC_116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        242
5.06e-73
1138.00
100.00%
100.00%
85.89%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:19374948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .1093
                     Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens cDNA clone IMAGE:5760942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST 12-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                        yo
of 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
```

Indels:

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                  RESULT 3
BM920874
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                            γ
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sn
                                                                                                        COMMENT
                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                      VERSION
                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB:
                                                                                                                                TITLE
                                                                                                                    JOURNAL
                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -09-944-944-42 (1-243) x BM924569 (1-1093)
                                                                                                                                                                                                                                                                                                                                          602
                                                                                                                                                                                                                                                                                                                                                                                           542
                                                                                                                                                                                                                                                                                                                                                                                                                    216
                                                                                                                                                                                                                                                                                                                                                                                                                                              482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                                                                                                                                                           AGENCOURT_6706053 NIH_MGC_115
                                                                                                    NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (bases 1 to 1045)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N
                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                           EST
                                                                                                                                                                                                                                     BM920874
BM920874.1 GI:19371253
                                                                                                                                                                                                                                                                                                                                        TyrAspAlaValThrGlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspGlyAlaProGlyAlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyThrProGlyHisHisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MetValArgLeuGluProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaSerPhePheGlnPhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HisAlaThrValTyrArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTTCGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGAACGAGCAGGGACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProProProSerAspAlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGluCysSerValProProArgSerAlaPheSerAlaLysArgSerGluSerArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTCGAGGGGACCCCGGGGCCGCGAGGAGAGGCCGGGACCCGCGGGCCCACCGGGCCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProArgGlyAspProGlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACGGCGCGCCCGGGGCTCCGGGAGAGAAAAGGCGAGGCCGGGAAGGCCGGGACTGCCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                            bp
5 Homo
                                                                                                                                                                                                                                                                         mRNA
sapiens
                                                                                                                                Gene
                                                                                                                                                                                                                                                                   linear EST 12-man 200-
cDNA clone IMAGE:5752141
                                                                                                                                Collection (MGC)
                          þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                             Ω
                                                                           밁
                                                                                                                            멍
                                                                                                                                                    Š
                                                                                                                                                                                밁
                                                                                                                                                                                                    QV
                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                        Qγ
                                                                                                                                                                                                                                                                                                                                                               ğ
                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                         망
                                                                                             δÃ
                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                     DЬ
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-42 (1-243) x BM920874 (1-1045)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No.:
                                                                                                                                                       141
                                                                                                                                                                                  453
                                                                                                                                                                                                           121
                                                                                                                                                                                                                                   393
                                                                                                                                                                                                                                                                                      333
                                                                                                                                                                                                                                                                                                                                        273
                                                                                                                                                                                                                                                                                                                                                                                           213
                                                                                                     161
                                                                                                                                                                                                                                                             101
                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                        21 AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Plate: LLAM12785
                                                                                                                             HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetArgProLeuIeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
 ProGluAspGlnValTrpValGlnVal-GlyValGlyAspTyrIle-GlyIleTyr-Ala
                          PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                            CGGGCCAGCCTGCAGTTTGATCTGGCGAAGAATGGCGAATCCATTGCCTCTTTGCTCCAT
                                                                                       ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                    AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                           CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCGCCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                           GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         quality sequence stop: 415
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note-Torgan: pooled brain, lung, testis; Vector: pcMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; 1 male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb, insert size range 1-3 kb Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 021. Note: this is a NIH_MGC Library. 343 c 341 g 183 t 2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5752141"
/clone_lib="NIH_MGC_115"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.24e-72
1125.00
90.98%
88.93%
84.91%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    row: n column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1045
217
5
18
4
  219
                          692
                                                                             632
                                                                                                     180
                                                                                                                               572
                                                                                                                                                        160
                                                                                                                                                                                   512
                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                   452
                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                      392
                                                                                                                                                                                                                                                                                                                                        332
                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                           212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                           272
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
BF098614
LOCUS
                                                                                                                                                                       Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                      Pred.
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
                    밁
                                             δ
                                                                           밁
                                                                                                     Š
                                                                                                                                          US-09-944-944-42 (1-243) x BF098614 (1-778)
                                                                                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                      Percent Similarity:
                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                    .
No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     813
                    152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                21
                                                                              92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; v
Mammalia; Eutheria; Rodentia; Sciurognath
1 (bases 1 to 778)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MCC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM9170 row: 1 column: 04
High quality sequence stop: 708.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BF098614.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601750614F1 NCI_CGAP_Mam1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               house mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cDNA Library Preparation: Life Technologies, cDNA Library Arrayed by: The I.M.A.G.E. Conso
                                AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 40
                                                                                               MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTTCCAGGCACACCAGGTCAC
                                                                              ATGAGGCCACTTCTTGCCCTTCTGCTTCTGGGTCTGGTCAGGCTCTCCTCCTCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerIleLysThrAspSerThrPheSer-GlyPheLeuValTyrSerAspTrpHisSerSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCATCCAGACAGACAGGACCTTCTCCCCGGATTTCTGGTGAACTCCGACTGGGCAGAGCT 812
                                                                                                                                                                                                                                                                                                                  148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                              /note="organ: mammary; Vector: pCMV-SPORT6; Site_1: Sa:
Site_2: Not1; Cloned unidirectionally. Primer: Oligo of Library constructed by Life Technologies. Investigator providing samples: Gilbert Smith, NIH"
a 237 c 249 g 144 t
                                                                                                                                                                                                                                                                                                                                                                                         /db_xref="taxon:10090"
/clone="IMAGE:3978387"
/clone_lib="NCI_CGAP_Maml"
/tissue_type="tumor, biopsy sample"
/dev_stage==10 months, virgin"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /strain="FVB/N"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
                                                                                                                                                                       1.09e-67
1062.50
90.83%
87.77%
80.19%
12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GI:10881140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus
                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bp mRNA
s musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ph.D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene
                                                                                                                                                                         778
201
7
18
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST 19-OCT-2000
IMAGE:3978387 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ье
                                                                                                           20
                                                                             151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             239
                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
BM547549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                              FEATURES
                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                 TITLE
                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                        found through the I.M.A.G.E. Consortium/LLNL http://image.llnl.gov plate: LLMN12713 row: o column: 19 High quality sequence stop: 591.
                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Invitrogen
                                                                                                                                                                                                                                                                NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; 1 (bases 1 to 1154)
                                                                                                                                                                                                                                                                                                                                                                                            EST
                                                                                                                                                                                                                                                                                                                                                                                                                         5', mRNA sequence
BM547549
                                                                                                                                                                                                                                                                                                                                                                                                                                    AGENCOURT_6507694
5', mRNA sequence
                                                                                                                                                                                                                                                   Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                         BM547549.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BM547549
                                                                                                                                                    CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PhePheGlyGlyTrpProLysProAlaSerLeuSer-GlyGlyAlaMetValArgLeuGl 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          H1sGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AT---TAGACAGACCGTACTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   erIleLysThrAspSerThrPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAAGTTCACCTGCCAAGTGCCTGGCGTCTACTACTTTGCTGTGCACGCCACTGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGCAGCCAAGGCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCATAAGGGGGGTGGCCCAAGCCAGCCTCGCTCTCAGGGGAGTGCGATGGTAAGGCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCCGCGTGGAGAGGCCAGGGCCCATGGGGGGCTATCGGGCCCTGCGGGGGAGTGCTCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCCGGGAGAGAAAGGCGAGGCGGGGAGACCGGGACTACCTGGGCCACGTGGGGAGCCC
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5724522"
/clone_lib="NIH_MGC_125"
                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                          GI:18781410
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1154 bp mRNA linear EST 20-FEB-2002
NIH_MGC_125 Homo sapiens cDNA clone IMAGE:5724522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             227
                                                                                                                                                                                                                                                   Ph.D.
                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                 Gene
                                                                                                                                                                                                                                                                                Collection (MGC)
```

631

571

391

80

271

331

ĕ

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-42 (1-243) x BM547549 (1-1154)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
No.:
                                                                                                                                                                                 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scores:
847
                            219
                                                          787
                                                                                       201
                                                                                                                     727
                                                                                                                                                   181
                                                                                                                                                                                                              161
                                                                                                                                                                                                                                            809
                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                        548
                                                                                                                                                                                                                                                                                                                                                                   488
                                                                                                                                                                                                                                                                                                                                                                                                                              428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        368
                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188
                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
CAGCGGTCCGAACGAAACAGACCTTTCCTGGGAATTTG
                          aSer-IleLysThrAspSerThrPheSerGlyPheLeu
                                                          CCCTGAGGACCAAGTGTGGGGGCACCGGGGTTCGGAGGTTGACCTCCCTGGGGACCTATGC
                                                                                    -ProGluAspGlnValTrpValGlnValGlyValGly---AspTyrIleGlyIleTyrAl
                                                                                                                  PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                       GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                     GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                 CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCCGCGAGGAGGCCGGGACCCGGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTCCGGGAGAAAGGCGAGGGCGGGAGGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGCGCGCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note-"organ: ovary (pool of 3); Vector: pCMV-SPORT6; Site_1: EcoRV (destroyed); Site_2: NotI; RNA source pool of three ovaries, from females ranging in age from 38 to 49 yo. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 2.1 kb, insert size 7.1 kb, insert size 1.3.5 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 036."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.79e-65
1034.00
88.89%
86.32%
78.04%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1154
202
6
23
23
                                                                                     219
                                                                                                                                                                                                                                                                                                                                                                                                                                                         100
                                                         846
                                                                                                                   786
                                                                                                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                          667
                                                                                                                                                                                                                                                                                                                                                                547
                                                                                                                                                                                                                                                                                                                                                                                                                          487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       247
```

맑 Q В Qy 멍 Š

밁 δÃ

Qγ

밁 Ωy 밁 Š В δ 멂 Ω В δÃ В ρ B Q

밁

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
SOURCE
ORGANISM
                                                                          ρ
                                                                                                                     밁
                                                                                                                                                         Q
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                             US-09-944-944-42 (1-243) x BI763193 (1-869)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                         396
                                                                                                                     337
                                                                                                                                                                                                    277
                                                                                                                                                                                                                                                                                   217
                                                                              61
                                                                                                                                                             41
                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA sequence.
BI763193
BI763193.1 GI:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 869)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BI763193 869 bp mkNA lines 603049929F1 NIH_MGC_116 Homo sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            found through the I.M.A.G.E. Consortium/LLNL http://image.lln1.gov Plate: LLMN11475 row: 1 column: 07 High quality sequence stop: 777.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                          HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                               MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                              AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                         AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 40
                                                                                                                     GACAACAAGATCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note-"Organ: pooled colon, kidney, stomach; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: ECORY (destroyed); RNA source anonymous pool of 3 colons, age 26 yo male, 49 yo female, 71 yo male colon; 46 yo male kidney, and pool of 2 stomachs, 62 yo male and 70 yo female. Library is oligo-dT primed and directionally cloned (ECORY site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 023. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:9606"
/clone="IMAGE:5190222"
/clone_lib="NIH_MGC_116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                6.74e-65
1024.50
1024.88
95.48%
94.12%
77.32%
13
                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length: Matches:
                                                                                                                                                                                                                                                                                                                                                                                                869
208
6
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ar EST 25-SEP-2001
IMAGE:5190222 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               be
                                                                                                                                                             60
                                         455
                                                                            90
                                                                                                                                                                                              336
                                                                                                                     395
                                                                                                                                                                                                                                                                               276
```

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 7
BI821899
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalia; Eutheria; Primates; Ca
1 (bases 1 to 941)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, N
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BI821899
603035796F1 NIH_MGC_115
                                                                                                                                                                                                                                                                              found through the I.M.A.G.E. Consortium/LLNL http://image.llnl.gov Plate: LLAM11440 row: p column: 24 High quality sequence stop: 779.
                                                                                                                                                                                                                                                                                                                                                             Email: ggapbs-remail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA sequence.
BI821899
                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BI821899.1 GI:15933449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   numan
                                                                                                                                                                                                                                                                                                                                    DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCCTGAGGACCAAGTGTGGGTGCAGGTTGGTGTTGGGTGACTACGTTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluProGluAspGlnValTrpValGlnValGlyVal-GlyAspTyrIleGlyIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlnPhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACCGGGCCAGCCTGCAGGTTGATCTGGTGAAGAATGGCGAATCCATTGGCTC-TTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAlaProLeuProPheAspArgValLeuVal-AsnGluGlnGlyHisTyrAspAlaVal- 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProProArgSerAlaPheSerAlaLysArgSerGluSerArg-ValProProProSerAs 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGTTTTACGGGGGGGGCCAAGCC--AGCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TyrArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              į
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGGTGCCTCCGCCGTCTGA
                                130
                                                                                                                                                                                                                                                                 quality sequence stop: Location/Qualifiers
                        /note="Norgan: pooled brain, lung, testis; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; 1 male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 021. Note: this is a NIH_MGC Library."
                                                                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5176967"
/clone_lib="NIH_MGC_115"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 941
Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bp mRNA linear EST 04-OCT-2001 sapiens cDNA clone IMAGE:5176967 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          217
                                                                                                                                                                                                                                                                                                                                     þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               515
                                                                                                                             1s
                                                                       C
                                          ACCESSION
VERSION
KEYWORDS
                                                                                                             RESULT 8
BI820945
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment
Pred. No.:
                                                                                                                                                                                                                                                Š
                                                                                                                                                                      밁
                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
                                SOURCE
                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-944-944-42 (1-243) x BI821899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score:
                  ORGANISM
                                                                                                                                                                    968
                                                                                                                                                                                               239
                                                                                                                                                                                                                         838
                                                                                                                                                                                                                                                    219
                                                                                                                                                                                                                                                                               778
                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                    719
                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                          659
                                                                                                                                                                                                                                                                                                                                                                                                                   160
                                                                                                                                                                                                                                                                                                                                                                                                                                                599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23
                                              EST
                                                                     BI820945
                                                                                     mRNA sequence.
                                                                                                BI820945
603033989F1 NIH_MGC_115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
                 Homo sapiens
                                                        BI820945.1
                                numan
                                                                                                                                                                                                                                                                               GAGCCCTGAGGACCAAGTGTGGGTTCCGGTGGGGTGTGGGTGACTACTTTGGCTTCTATG
                                                                                                                                                                                                                                                                                             Glu-ProGluAspGlnValTrpValGlnVal-GlyValGlyAspTyrIleGlyIleTyrA
                                                                                                                                                                                                                                                                                                                                     CAGTT-TTCGGGCAGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCGCCATGGTGAGGCTG
                                                                                                                                                                                                                                                                                                                                                   GlnPhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeu
                                                                                                                                                                                                                                                                                                                                                                                          TyrArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePhe 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGCAAGTTCACCTGCCGAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATTGCCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    roArgGlyGluAlaGlyProAlaGlyProThr-GlyProAla-GlyGluCysSerValPr 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               roGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspProGlyP 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCAGGTC
                                                                                                                                                                                              erProVal
                                                                                                                                                                                                                         CCAGCATCAGGCA-GACAGGACCTTCTCCGGATTCTG-GTGTACTCCGACTGGCACAGTC
                                                                                                                                                                                                                                       laSerIleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerS 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                            rGlyLysPheThrCys-GlnValProGlyValTyrTyrPheAlaValHis-AlaThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGGGCCTGCCGGGGGAGTGCTCGGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ser-GlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly-AlaP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHisHisGly 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.81e-64
1019.00
90.40%
89.20%
76.91%
                                                           GI:15932495
                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1-941)
                                                                                                                879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps:
                                                                                                  sapiens
                                                                                                  cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               941
223
3
13
14
0
                                                                                                              linear
                                                                                                IMAGE:5175070 5',
```

837

895

199 718

777

159

478

418

358 62 298

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE CONTIGIN
                                                                                                                                                                                                                             γQ
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity:
Query Match:
                                                                                                                         Š
                                                                                                                                                                                  Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-944-944-42 (1-243) x BI820945 (1-879)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No.:
                                                                                                                                                                                                                                                                                           346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  226
                                                                                   466
                                                                                                                              101
                                                                                                                                                                                       406
                                                                                                                                                                                                                                                                                                                                                                                            286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                               . 81
                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 879)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: LLAM11436 row: a column: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaProLeuProPheAspArgValLeuValAsn---GluGlnGlyHisTyrAspAlaVal
                                                                                                         ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                               GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                   AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                            HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                        GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                    GGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="organ: pooled brain, lung, testis; Vector: /note="organ: pooled brain, lung, testis; Vector: pcMV-SPORT6; Site_1: Not1; Site_2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; 1 male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb, insert size range 1.3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 021. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="taxon:9606"
/clone="IMAGE:5175070"
/clone_lib="NIH_MGC_115"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1006.00
88.19%
86.92%
75.92%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.49e-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      þe
                                                                                                                                 120
                                                                                                                                                                                    465
                                                                                                                                                                                                                                                                                        405
                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                            345
                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                285
                                                                                                                              BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
BI490062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멂
                                                     Pred.
                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                     No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              819 ATGGCCTCTATCCCCCTCCACACCGACAGCGCCTTCTCCGGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       526 GCACCCTTGCCCTTCGACCGCGTGCTGGTGACACCGAGCAGGGCACATTACGACGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 887)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collections of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BI490062
603031867F1 NIH_MGC_115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              High quality sequence stop: 815.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BI490062.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BI490062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plate: LLAM11430 row: f column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TyrAlaSerIle-----LysThrAspSerThrPheSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgLeuGluProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCTGGAGCCTGAGGACCACGTGTGGCCTGCACGTGGCTGC - - - - - TGCGTGAACTAC
                                                                                                                                                         146
                                                                                                                                                 /note-"Organ: pooled brain, lung, testis; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; 1 male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 021. Note: this is a NIH_MGC Library."
                                                                                                                                                       ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5172880"
                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="NIH_MGC_115"
/lab_host="DH10B"
5.86e-62
984.00
80.66%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                887
Homo
Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bp mRNA
sapiens cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
A clone IM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hominidae;
  887
196
0
```

818

764 197 704 179 645 159

IMAGE:5172880 5',

Euteleostomi;

ь́е

```
RESULT 10
B1688017
LOCUS
 REFERENCE
AUTHORS
TITLE
                                                                           KEYWORDS
SOURCE
                                                                                                  ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best I
Query
DB:
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                    γ
                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-42
                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Match:
       NIH-MGC http://m~~
                                                                                                                                                                                                                                                                                                   646
                                                                                                                                                                                                                                                                                                                                                 587
                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                  706
                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                 527
                                                                                                                                                                                                                                                                                                                                                                                                                        161
                                                                                                                                                                                                                                                                                                                                                                                                                                                 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              173
                                                                                                                                                                                                   766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21
                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                         EST
                                                                                                                         mRNA sequence.
                                                                                                                                       603315786F1 NCI_CGAP_Mam6
                                                                                                                                                    BI688017
   National
                                                             Mus musculus
                                                                                                   BI688017.1
                                                                                                                BI68801
                                                                           nouse mouse
                                                                                                                                                                                                                oValPhe 242
                                                                                                                                                                                                                                                                                                                                              GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                  ATCAAGACAGACACCTTCTCCGGATTTCTTGGTGTACTCCGACTGGGCACAGCTCCC
                                                                                                                                                                                                                                                                                                 CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCCGCGAGGAGAGGCGGGACCCGCGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (1-243) x BI490062 (1-887)
 http://mgc.nci.nih.gov/.
l Institutes of Health, Mammalian
                                                                                                    GI:15650645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
74
13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . 269
                                     Chordata;
Rodentia;
                                                                                                                                  842 bp mkna
5 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches:
Indels:
                                   Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                    mRNA
                                                                                                                                       CDNA
  Gene
                                                                                                                                      linear
A clone
   Collection
                                                                                                                                      EST 18-SEP-2001
IMAGE:5355789 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                  765
                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                 705
                                                                                                                                                                                                                                                                                                                                                 645
                                                                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                                                586
                                                                                                                                                                                                                                                                                                                                                                                                                                               526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
COMMENT
õ
                         밁
                                          δÃ
                                                                  ₽
                                                                                             Š
                                                                                                                        В
                                                                                                                                           Q
                                                                                                                                                                   밁
                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                         Вþ
                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-944-944-42 (1-243) x BI688017 (1-842)
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                          452
  160
                                                 140
                                                                          512
                                                                                                  121
                                                                                                                                                 101
                                                                                                                                                                         392
                                                                                                                                                                                                                          332
                                                                                                                                                                                                                                                                          272
                                                                                                                                                                                                                                                                                                                        212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scores:
                                                                                                                                                                                                                                                                                                                                                                        152
                                                                                                                                                                                                81
                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                μ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey Green M:D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics; Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1999)
Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop: Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM11904 row: k column: 22 High quality sequence stop: 795.
                                                                                                                                                                                                                                                                                                                                    AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 40
                                                                                                                                                                        GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                   AlaProLeuProPheAspArgValLeuVal-AsnGluGlnGlyHisTyrAspAlaValTh 140
                                                                                                                        ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp 120
                                                                                                                                                                                                                                     AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                     HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                    MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
yr \texttt{ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheG}
                                       rGlyLysPheThrCysGln-ValProGlyValTyrTyrPheAlaValHisAlaThrValT 160
                                                                          ACACCCCTACCTTTCGACCGTGTGCTGCTAAAATGAGCAGGGCCATTTCGACCCCACTAC
                                                                                                                                                                                                                          GCTCCGGGAGAGAAAGGCGAGGGCGGGAGACCGGGACTACCTGGGCCCACGTGGGGAGCCC
                                                                                                                                                                                                                                                                         CATGGCAGCCAAGGCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGA
                                                                                                                                                                                                                                                                                                                       GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTTCCAGGCACACCAGGTCAC
                                                                                                                                                                                                                                                                                                                                                                      ATGAGGCCACTTCTTGCCTTCTTGGGTCTGGTGTCAGGCTCTCCTCCTCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="NCI_CGAP_Mam6"
/sex="female, virgin"
/tissue_type="infiltrating d
/dev_stage="5 months"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-"Organ: mammary; Vector: pCMV-SPORT6; Site_1: Saisite_2: NotI; Cloned unidirectionally. Primer: Oilgo (Library constructed by Life Technologies. Investigator providing samples: Jeffrey Green, M.D., NIH"

256 c 265 g 160 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /strain="FVB/N"
/db_xref="taxon:10090"
/clone="IMAGE:5355789"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .842
                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.18e-62
982.50
88.03%
84.19%
74.15%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ductal carcinoma"
                                                                                                                                                                                                                                                                                                                                                                                                                                               842
197
9
22
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sali
```

180

80

391

60

271

211 20

```
Best Local
Query Match
DB:
                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
BI458455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                            Percent Similarity:
Best Local Similarity:
Query Match:
               US-09-944-944-42 (1-243)
                                                                                                           Score:
                                                                                                                                      Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                          No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                        Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             632
                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MCC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAMI1702 row: j column: 09
High quality sequence stop: 815.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: cgapbs-remail.nih.gov
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
cDNA Library Preparation: Michael J. Brownstein (NHGRI),
Toshiyuki and Piero Carninci (RIKEN)
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 846)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence.
BI458455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BI458455
603198837F1 NIH_MGC_96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BI458455.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           yrAlaSerIleLysThrAspSerThrPheSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCCAGCATCAAGGACGACAGTAACCTCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             lnPhePheGlyGlyTrp-ProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          129
                                                                                                                                                                                 for full-length clones and constructed using the Cap-trapper method (Carninci, in preparation). Library constructed by M. Brownstein (NIMH/NHGRI, National Institutes of Health). Note: this is a NIH_MGC Library." a 271 c 330 g 115 t 1 others
                                                                                                                                                                                                                                                       /note="Organ: brain; Vector: pBluescriptR (modified pBluescript KS+); Site_1: BanHI; Site_2: SalI-xhoI (gtcgag); Oligo-dT primed using primer 5'-TTTTTTTTTTTTTTTVN-3', size-selected for average insert size 2.3 kb and normalized to ROT 5. This is a primary library enriched
                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5278184"
/clone_lib="NIH_MGC_96"
                                                                                                                                                                                                                                                                                                                                      /tissue_type="hypothalamus"
/lab_host="DH10B"
                                             3.97e-57
917.00
92.27%
91.30%
69.21%
                                                                                                                                                                                                                                                                                                                                                                                                                                 .846
            x BI458455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             846
                                                          Mismatches:
Indels:
                                                                                        Matches:
Conservative:
                                             Gaps:
                                                                                                                        Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA line
s cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gene
                                            846
189
2
12
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IMAGE: 5278184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST 21-AUG-2001
2:5278184 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shiraki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  218
                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
BM926477
LOCUS
                                                                                                                                                                                                                                                                                          SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
              FEATURES
                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                 JOURNAL
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          598
                                                                                                                                                                                                                                                                                                                                                                                                                                                               830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                     Contact: Robert Strausberg, Ph.D.

Email: cgapbs r@mail.nih.gov

Tissue Procurement: Life Technologies, Inc.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (
DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution informati

found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov
                                                                                                                                                                                                            1 (bases 1 to 1623)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                      AGENCOURT_6644538 NIH_MGC_122
5', mRNA sequence.
BM926477
            High quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                              Unpublished (1999)
                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                        human.
                                                                                                                                                                                                                                                                                                                                        BM926477.1
                                                                                                                                                                                                                                                                                                                                                                                                   BM926477
                                         Plate: LLAM12824 row: d column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTTGAGACCAGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          luProGluAspGlnVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTTTTCGGGGGGGTGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nPhePheGlyGlyTrpProLysPro-AlaSerLeuSerGlyGlyAlaMetValArgLeuG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGGGCCAG-CTGCAGTTTGATCTGGTGAAGAATGGGAA-TCCATTGCCTCTTTCTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGCCGCGAGGAGAGGCGGGACCCGCGGGGGCCCAC-GGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                        GI:19376856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -CCAGGCAAGCTCGTCTCGGGGGGGCATGTTGAGGCTGG
```

bp 2 Homo

sapiens

ar EST 12-MAR-2002 clone IMAGE:5766864

180

775

829

200

160

140

657

120

597

100 478

537

60 358 40

80 418

Gene Collection (MGC)

information can

e e

Hominidae;

Euteleostomi;

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-944-944-42 (1-243) x BM926477 (1-1623)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Хо
:
                                       697
                                                                             178
                                                                                                                                                       160
                                                                                                                                                                                             577
                                                                                                                                                                                                                                                                       517
                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                              457
                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                          397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   157
                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21
                                                                                                                                                                                                                 GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThr-ValTy 160
                                                                                                                                                                                                                                                                                                                                            uSerGlyGly 194
                                                                                                                                                                                                                                                                                        AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rArg-AlaSerLeu-GlnPheAspLeuVal---LysAsnGlyGluSerIle-AlaSerPh 178
                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                       ePheGln---PhePhe-----GlyGlyTrpPro--
                                                                                                                 CCGGGGCCAGCCTGGCAGTTTGATCCTGGGTGAACAATGGGGGGAATCCATTTGCCTCTTT
                                                                                                                                                                                           GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGGTCTA
                                                                                                                                                                                                                                                                     GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                  ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp 120
                                                                                                                                                                                                                                                                                                                                                                                                                        GGGCCGCGAGGAGGCGGGACCCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGACGCCGCGACGCCGCGCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                     TCTTTCCCCGTTTTTTCCGGGGGGGGGGGGCCCCCAAGCGCAGACCCTTCGGCATCCTT 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-*Organ: pooled lung and spleen; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 24 week female lung, 16 week female spleen, and 20-22 week male spleens. Library is oligo-dr primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber full-length clones and was constructed by C. Gruber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5766864"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_lib-"NIH_MGC_122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Invitrogen). Research Genetics tracking-
this is a NIH_MGC Library." 6 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.78e-55
895.00
88:83%
88.83%
67.55%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1623
183
0
11
12

    LysProAlaSerLe 191

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            code 026. Note:
                                                                                                                                                                                                                                                                                                                                              516
                                                                                                                 696
                                                                                                                                                                                         636
                                                                                                                                                                                                                                                                       576
                                                                                                                                                                                                                                                                                                                                                                                                                          456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
```

밁 õ 밁 δÕ 8 QΥ 밁 δõ 밁 Ş 밁 Ω 밁 Qy В δ 밁 Qy 밁 δ В Ş

RESULT 13

```
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
  US-09-944-944-42
                                                                              Best Local Similarity:
Query Match:
                                                                                                                                 Percent Similarity:
                                                                                                                                                               Score:
                                                                                                                                                                                       Pred. No.:
                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                           BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BM021381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Melton,D., Brown,J., Kenty,G., Permutt,A., Lee,C., Kaestner,K., Lemishka,I., Scearce,M., Brestelli,J., Gradwohl,G., Clifton,S., Hillier,L., Marra,M., Pape,D., Wylie,T., Martin,J., Blistain,A., Schmitt,A., Theising,B., Ritter,E., Ronko,I., Bennett,J., Cardenas,M., Gibbons,M., McCann,R., Cole,R., Tsagareishvili,R., Williams,T., Jackson,Y. and Bowers,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Douglas Melton DNA sequencing by:
Washington University Genome Sequencing Center For information on
obtaining a clone please contact: Juliana Brown
(brown@fas.harvard.edu) This sequence now available from the IMAGE
consortium, for clone orders contact: info@image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished (2000)
Other_ESTs: 1e76e01.xl
Contact: Douglas Melton, Klaus H. Kaestner, & Hirosh
Endoorine Pancreas Consortium
Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BM021381 11near EST 12-MAR-2002 1e76e01.y1 Melton Normalized Human Islet 4 N4-HIS 1 Homo sapiens cDNA clone IMAGE:5672905 5' similar to TR:09UEX4 09UEX4 HYPOTHETICAL 22.8 KD PROTEIN ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop: 435.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tel: 617-495-1812
Fax: 617-495-8557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria; Primates;
1 (bases 1 to 567)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02138
(1-243) x BM021381
                                                                                                                                                                                                                                                                                              92
                                                                                                                                                                                                                                                                                                                                   /note="Organ: Pancreas; Vector: pSPORT1; Site_1: Not 1; Site_2: Sal 1; Starting library constructed using SuperScript Plasmid Library kit (Life Technologies). cDNA made by oligo-dT priming. Size-selected by column fractionation; average insert size 1.08 kb. Library was amplified once on solid support and plasmid DNA from library was prepared. The library DNA was normalized by method #4 from Bonaldo, Lennon, and Soares 1996 Genome Research 6:791-806; 0.5 microgram single-stranded library plasmid DNA was mixed with 5 micrograms PCR product representing library inserts and hybridized to an Ecot of 20. Single-stranded (unhybridized) plasmids were isolated by hydroxyapatite chromatography and used to make this
                                                                                                                                                                                                                                                                                           þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5672905"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="Islets of Langerhans"
/dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="Melton
/sex="Both"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /lab_host-"DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ocar:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Metazoa;
                                                                           3.9e-54
873.50
94.41%
94.41%
65.92%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:16535737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                on/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
(1-567)
                                                                                                                                                                                                                                                                                        g
                                                                                                                              Length:
Matches:
Conservative:
                                                   Gaps:
                                                                           Indels:
                                                                                                         Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Normalized Human
                                                                                                                                                                                                                                                                                           95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 & Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Islet 4 N4-HIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ave, Cambridge
```

Вb

δÕ Д δÃ 밁 δ

β Q

```
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
BF540263
LOCUS
                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54
                                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium
                                                                                                                                                                                                                                                                                                                                            Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vert
Mammalia; Eutheria; Rodentia; Sciurognathi;
1 (bases 1 to 936)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BF540263
602052317F1 NCI_CGAP_SG2
                                                                                                                            found through the I.M.A.G.E. Consortium/LINL http://image.linl.gov plate: LLAM9520 row: b column: 05 High quality sequence stop: 748.
                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                           EST.
house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                       BF540263
BF540263.1
                                                                                                                                                                                                                                                                                                         Unpublished (1999)
                                                                                                                                                                                                                                                                                                                   NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence
                                                                                                                                                                                                  DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyArgAspGlyAlaProGlyAlaProGlyGluLys---GlyGluGlyGlyArgProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlnGlyHisTyrAspAlaValThrGlyLysPheThrCysGlnValProGlyValTyrTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyProAlaGlyGluCysSerValProProArgSerAlaPheSerAlaLysArgSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuProGlyProArgGlyAspProGlyProArgGlyGluAlaGlyProAlaGlyProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTACATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspTyrIleGlyIleTyrAlaSerIleLysThrAspSerThrPheSerGlyPheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SerArgValProProProSerAspAlaProLeuProPheAspArgValLeuValAsnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGCCTGCCGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCC-GGGAGGGGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAG
/organism="Mus musculus"
/strain="FVB/N"
/strain="TVB/N"
/db_xref="faxon:10090"
/clone="IMAGE:4191268"
/clone=lib="MCI_CGAP_SG2"
/clone=lib="MCI_CGAP_SG2"
/lab_host="0"HOI (T1 phage-resistant)"
/note="Organ: sallvary gland; Vector: pCMV-SPORT6; Si
NotI; Site_2: Sall; Cloned unidirectionally. Primer:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               936
Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bp mRNA linear musculus cDNA clone
                                                                                                                                                                                                                                                                                                                      Mammalian
                                                                                                                                                                                                                                                                                                                                                              Vertebrata;
thi; Muridae;
                                                                                                                                                                                                                                                                                                                      Gene
                                                                                                                                                                                                                                                                                                                    Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               r EST 11-DEC
IMAGE:4191268
                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                               Murinae;
    Site_1:
er: Oligo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     567
                                                                                                                                                                                                       be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -2000
5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                210
                                                           SOURCE
ORGANISM
                                                                                                   ACCESSION
VERSION
                                                                                                                                                          RESULT 15
AF451167
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                 뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-42 (1-243) x BF540263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score:
     REFERENCE
                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment
                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        No.:
                                                                                                                                                                                                                                                                           749
                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                   689
                                                                                                                                                                                                                                                                                                                                                              160
                                                                                                                                                                                                                                                                                                                                                                                            629
                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                   570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              210
                                                                                                                                                                                                                                                199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       270
                                                                                                  mRNA sequence.
AF451167
AF451167.1 GI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                             AF451167
AF451167
 Bos taurus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Bovinae; Bos.
1 (bases 1 to 870)
                                                                           COW
                                                                                       EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTTCCAGGCACACCAGGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGAGGCCACTTCTTGCCCTTCTGCTTCTGGGTCTGGTCAGGCTCTCCTCCTCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetArgProLeuIeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                  GATCTCCAGGGGTGACGGAGGGCCACGGGTTAAAACCGGGGGACCAGGTG
                                                                                                                                                                                                                                                                                          lnPhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArg----
|| |||||||||
                                                                                                                                                                                                                                                                                                                                  rArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGlu-SerIleAlaSerPhePheG
                                                                                                                                                                                                                                                                                                                                                                                          GGGCAAGTTCACCTGCCAAGTGCCTGGCGTCTACTACTTTGCTGTGCACGCCACTGTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACACCCTA - CCTTTCGACCGTGTGCTGCTAAATGAGCAGGGCCATTTCGAACCCACTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGGCAGCCAAGGCCTGGCCTGGCCGTGACGGCCGTGATGGCCGGACGGTGCACCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                           -GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCCGGGAGAGAAAGGCGAGGGCGGGAGACCGGGACTACCTGGGCCACGTGGGGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  dT. Aver-
Technologies. No a 270 c 3
                                                                                                                                             Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.41e-53
868.50
82.57%
78.44%
65.55%
                                                                                                    GI:21843107
                                                                                                                                              taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Average insert size 1.3 hnologies. Note: this is 270 c 318 g 148 t
                                                                                                                                           870 retinal p
                                                                                                                                                                                                                                   -----LeuGluProGluAspGlnVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1-936)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                             pigment
                                                                                                                                                        φ
                                                                                                                                           mRNA linear
cepithelium Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a kb.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        b. Constructed by Life
NCI_CGAP Library."
                                                                                                                                                                                                                                                                            GGGGGCGCCCAAAGCCAGCCTT
```

100 509

449 80 389 60 329 40 269 20

EST 17-JUL-2002 taurus cDNA,

784 198 748 180 889 160 628 140

Bovoidea;

밁 ρy ф

Qу

Qy

ρ γ

B 64

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL COMMENT
Search completed: June 21,.2003, 18:00:05 Job time: 1733 secs
                                                        밁
                                                                               ş
                                                                                                           밁
                                                                                                                                   Ş
                                                                                                                                                            B
                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                日
                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-944-944-42 (1-243) x AF451167 (1-870)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                           362
                                                                                                                                                                                          187
                                                                                                                                                                                                                                                                        182
                                                                    227 PheSerGlyPheLeuValTyrSerAspTrpHisSerSerProValPheAla 243
                                                                                                                       207 ValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSerIleLysThrAspSerThr
                                                                                                                                                               302 AAGCCAGCCTCGCTCTCCGGGGGCGCCCATGGTGAGGCTGGAGGCCTGAAGACCAGGTGTGG
                                                                                                                                                                                                                    242
                                                                                                                                                                                                                                              167
                                                                                                                                                                                                                                                                                                 147
                                                                                                                                                                                                                                                                                                                             122
                                                        422
                                                                                                                                                                                                                                                                                                                                                     127
                                                                                                                                                                                                                                                                                                                                                                                            107 SerAlaLysArgSerGluSerArgValProProProSerAspAlaProLeuProPheAsp 126
                                                                                                                                                                                                                                                                                                                                                                                 62
                                                                                                                                                                                                                                                                                                                                                                                                                                               87 GlyProAlaGlyProThrGlyProAlaGlyGluCysSerValProProArgSerAlaPhe 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Flinders University
Flinders Drive, Bedford Park, SA 5042, Australia
Email: shiwani.sharma@flinders.edu.au.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hybridization
Mol. Vis. 8, 251-2
Contact: Sharma S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sharma, S., Chang, J.T., Della, N.G., Campochiaro, P.A. and Zack, D.J. Identification of novel bovine RPE and retinal genes by subtractive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ophthalmology
                                                                                                                                                                                                                LysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGluProGluAspGlnValTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACCCATGGGGGCAACCGGGCCGGCCGGCGAGTGCTCGGTGCCTCCGCGCTCCGCCTTC
                                                                                                          TTCTCTGGATTTCTAGTGTATTCTGACTGGCACAACTCCCCTGTCTTCGCT 472
                                                                                                                                                                                                                                                                                                                                                                              AGCGCTAAGCGCTCTGAGAGCCGGGGTGCCCCCGCCGTCGGACGCCCCCTACCCCTTCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Bos taurus"
/db_xref="taxon:9913"
/clone_lib="Bos taurus retinal pigment epithelium"
/tissue_type="retinal pigment epithelium"
/note="Heterologous primer from porcine were used to
amplify bovine target cDNA"
251 c 265 g 183 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8, 251-258 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.33e-50
827.00
98.73%
98.09%
62.42%
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154
154
0
                                                                                                           421
                                                                                                                                  226
                                                                                                                                                            361
                                                                                                                                                                                       206
                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                  61
```

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                           Database
                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 10
                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                       408
399
374
363.50
363
363
362
360.55
359
351
314
                                                                                                                                                                                                                           418.5
                         280.5
277.5
261.5
238.5
230.5
227.5
225.5
                                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                                                                                                                                                                                                                                                              seq
                                                                                                                                                                                                                                                                                                                                                                                                                                               length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                       length:
                                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                              PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
                                                                                                                                                                                                                                                                                 Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           June 13,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          283224 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapop 10.0 ,
US-09-944-944-42
                                                                                                                                                                                                                                                                                                                                                                                                          Listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MRPLLVLLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Copyright
                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2003, 15:58:21; Search time 41 Seconds (without alignments) 569.772 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                          first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version (c) 1993 - 2003
                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96134422 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapext 0
                                                                                                                                                                                                                                                                                                                                                                                                                     100%
                                  C1HUQA
S19018
B48150
C48150
A48150
T08772
CGB07S
I51921
                                                                                                                                                                                                                                                                        Ħ
                          LNHUP1
                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15.1.6
Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        283224
                        hypothetical prote collagen alpha 1(I pulmonary surfacta pulmonary surfacta
                                                                                                                                                                                                                         hypothetical prote gelatin-binding 28 collagen alpha 1(X collagen alpha 1(X)
                                                                                                                                                   collagen alpha 1
collagen alpha 1
collagen alpha 1
collagen alpha 2
                                                                                                       complement Clq B c collagen precursor
       hypothetical collagen alp
                                                                                               complement
                                                                                                                          collagen alpha
                                                                                                                                  complement subcomp
                                                                                                                                                                                               collagen alpha 1(X collagen alpha 1(X
                                                                                                                                                                                                                  complement subcomp
                                                                                                                                                                                                                                                                      Description
                                                           hibernation-relate
                                                                     hibernation-relate
                                                                            hibernation-relate
                                                                                       complement subcomp
                                                                                                                                                                             subcomp
lpha 1(V
                                                                                               subcomp
                                                                                                                1(V
B c
                                                                                                                                                            밁
                                                                                                                                                                            Q
                                                                                                                                                                                               맑
                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                             121
                                                                                                                                           205
                                                                                                                                                                                                51
                                                                                                                                                                                                                 85
```

ALIGNMENTS

hypothetical protein DKFZp586B0621.1 - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change
C;Accession: T14782
R;Ottenwaelder, B; Obermaier, B.; Mewes, H.W.; Gassenhuber, J.;
submitted to the Protein Sequence Database, August 1999
A;Reference number: Z18184
A;Accession: T14782
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-219 <OTT>
A;Cross-references: EMBL:AL110261 A;Experimental source: adult uterus; clone DKFZp586B0621 C;Genetics:
A;Note: DKFZp586B0621.1
C;Superfamily: complement C1q carboxyl-terminal homology 219; Similarity CQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQ EAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFT CQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQ EAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFT PSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGEKGEGGRPGLPGPRGDPGPRG Conservative 91.1%; 5c. 100.0%; Pr Score 1207; DB 2; Pred. No. 1.3e-77; 0; Mismatches 0; 20-Sep-1999 #text_change 02-Sep-2000 Length 219; Indels J.; Wiemann, 0 Gaps 144 60

JC4/V8
JC4/V8
gelatin-binding 28K protein precursor - human
gelatin-binding 28K protein precursor - human
N;Alternate names: adipose specific collagen-like factor
C;Species: Homo sapiens (man)
C;Apecies: Homo sapiens (man)
C;Apecies: 10-May-1996 #sequence_revision 19-Jul-1996 #text_change 20-Sep-1999
C;Accession: JC4708; JC4944
C;Accession: JC4708; JC4944
R;Maeda, K.; Okubo, K.; Shimomura, I.; Funahashi, T.; Matsuzawa, Y.; Matsubara, K.
Biochem. Biophys. Res. Commun. 221, 286-289, 1996
Biochem. Biophys. Res. Commun. 221, 286-289, 1996
A;Title: CDNA cloning and expression of a novel adipose specific collagen-like factor
A:Reference number: JC4708; MUID:96224171; PMID:8619847 A;Reference number: A;Accession: JC4708

```
collagen alpha 1(X) chain precursor - human
N;Alternate names: procollagen alpha 1(X) chain
C;Species: Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
CGHU1D
                                                                                                                                                                                                                                                                                                                    R;Reichenberger, E.; Beier, F.; LuValle, P.; Olsen, B.R.; vc
FEBS Lett. 311, 305-310, 1992
A;Title: Genomic organization and full-length cDNA sequence
A;Reference number: S26396; MUID:93012005; PMID:1397333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J. Blochem. 120, 803-812, 1996
A; Title: Isolation and characterization of A; Reference number: JC4944; MUID:97103474; A; Accession: JC4944
A; Molecule type: DNA
A; Residues: 'TIPFYGWVCWVCLL',52-680 <APT>
A; Residues: 'TIPFYGWVCWVCLL',52-680 <APT>
A; Cross-references: EMBL:X65120; NID:g23129
A; Note: the initial difference is probably of the initial difference is probably of R; Apte, S; Mattei, M.G.; Olsen, B.R.
FEBS Lett. 282, 393-396, 1991
                                                                                                                                        A; Accession: S30086
                                                                                                                                                             submitted to the EMBL Data A; Reference number: $30085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              F;114-241/Domain: complement C1q carboxyl-terminal homology <C1Q>F;95/Modified site: 4-hydroxyproline (Pro) #status experimental F;230/Binding site: carbohydrate (Asn) (covalent) #status predict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Superfamily: unassigned collagens; complement C1q carboxyl-terminal C;Keywords: adipose tissue; glycoprotein; hydroxyproline F;1-18/Domain: signal sequence #status predicted <SIG>F;19-244/Product: gelatin-binding 28kDa protein #status experimental <
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Molecule type: protein A;Residues: 19-38;93-100;101-112;135-149;173-178 <NAK> C;Comment: This protein is an endogenous factor that binds with a collagen-like
                                                                                                                                                                                                                                     A;Cross-references: EMBL:X68952;
                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-680 < REI>
                                                                                                                                                                                                                                                                                                        A; Accession: S26396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;42-107/Region: collagen-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Experimental source: adipose tissue R;Nakano, Y.; Tobe, T.; Choi-Miura, N.H.; Mazda,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: DDBJ:D45371; NID:g871886; PIDN:BAA08227.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-244 <MAE>
                                                                                                                                                                                                                                                                                                                                                                        Species: Homo sapiens (man)
Species: Homo sapiens (man)
Date: 22-Nov-1993 #sequence_revision 03-Nov-1995 #text_change 22-Jun-1999
Accession: S26396; S30086; S15826; S18249; A43901; I51870; S21856
Reichenberger, E.; Beier, F.; LuValle, P.; Olsen, B.R.; von der Mark, K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RNGLYADNDNDSTFTGFLLYHD 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAPGRDGRD-----GTPGEKGEKGDPGLIGPKGDIGETGVPGAEGPRGFPGIQGRKGEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GEGAYVYRSAFSV-GLETYVTIP-NMPIRFTKIFYNQQNHYDGSTGKFHCNIPGLYYFAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HITVYMKDVKVSLFKKDKAMLFTYDQYQENNVDQA--SGSVLLHLEVGDQVWLQVYGEGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HATVYRASLQFDLVKNGES-IASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAV 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGD-----PGPRGEAGPAGPTGPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VLLLIGLAAGSPPLDDNKIPSLCPGH-----PG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32.0%;
                                                                                                                                                                                     Library,
                                                                                                                                                                                                                                     EMBL: X72578; EMBL: X72579; EMBL: X72580;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----PGHDQETTTQGPGVLLPLPKGACTGWMAGIPGHPGHN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 424; DB 2;
Pred. No. 7.7e-23;
                                                                                                                                                                                       March 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                  due
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GBP28, a novel PMID:8947845
                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Τ.;
                                               translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tomita,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----LPGTPGHHGSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gelatin-binding protein
                                                                                                                                                                                                                                                                                                                                                   of
                                               of an
                                                                                                                                                                                                                                                                                                                                                                                                  der Mark, K.; Bertling,
                                                                                                                                                                                                                                                                                                                                                   human collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PID:g871887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           58;
                                               intronic sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            homology
                                                                                                                                                                                                                                  GB:S47714; GB:S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          purifi
                                                                                                                                                                                                                                                                                                                                                                                                  Σ
  밁
                                        Ş
                                                                                                                                                                                                                                ğ
```

```
A;Residues: 1-26,'T',28-680 <THO>
A;Cross-references: EMBL:X60382; NID:g30094; PIDN:CAA42933.1; PID:g30095
A;Note: the sequence from Fig. 3 is inconsistent with that from Fig. 2 in R;Reichenberger, E.; Aigner, T.; von der Mark, K.; Stoss, H.; Bertling, W. Dev. Biol. 148, 562-572, 1991
A;Title: In sith har-size.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Superfamily: collagen alpha 1(VIII) chain; complement C1q carboxyl-terminal homolog C;Keywords: coiled coil; extracellular matrix; glycoprotein; homotrimer; hydroxylysin F;1-18/Domain: signal sequence #status predicted <SIG>
F;19-680/Product: collagen alpha 1(X) chain #status predicted <MAT>
F;19-56/Domain: amino-terminal nonhelical #status predicted <NC2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 561-647, 'G', 649-666 < AP2>
A; Cross-references: EMBL: X58879; NID: g30013; PIDN: CAA41686.1;
R; Thomas, J.T.; Cresswell, C.J.; Rash, B.; Nicolai, H.; Jones,
Biochem. J. 280, 617-623, 1991
                                                                                                                   밁
                                                                                                                                                                      Ω
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              F;530-680/Domain: amino-terminal nonhelical #status predicted <NCl>F;553-679/Domain: complement Clq carboxyl-terminal homology <ClQ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Residues: 520-597,'D',599-680 <WAL>
A;Cross-references: GB:568531; NID:9545180; PIDN:AAC60615.1; PID:9545181
A;Note: mutant sequence from pattient with metaphyseal chondrodysplasia t;
A;Note: a second mutant sequence with 614-Pro is also described
C;Comment: Prolines and lysines at the third position of the tripeptide is ed and subsequently O-glycosylated.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:M74050; GB:D57494; NID:g339884; PIDN:AAA61221.1; A;Note: sequence extracted from NCBI backbone (NCBIN:69012, NCBIP:69014) R;Wallis, G.A.; Rash, B.; Sweetman, W.A.; Thomas, J.T.; Super, M.; Evans Am. J. Hum. Genet. 54, 169-178, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: The human collagen X gene. Complete primary translated sequence and A;Reference number: S18249; MUID:92109659; PMID:1764025
A;Accession: S18249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Title: Cloning of human alpha-1(X) collagen DNA and localization A; Reference number: S15826; MUID:91243838; PMID:2037056 A; Accession: S15826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F;617/Binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;57-519/Region: interrupted helical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               be important for skeletogenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Description: structural component of extracellular fibrous polymer specifically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Note: a defect in this gene may C; Complex: type X collagen may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Introns:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Map position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: GDB:128635; OMIM:120110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Gene: GDB: COL10A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 520-597, 'I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Status: translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: I51870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Reference number: I51870; MUID: 94136476;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pe Schmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 547-656 < RE2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: A43901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Title: In situ hybridization studies on the expression A; Reference number: A43901; MUID:92077285; PMID:1743401
                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genetics:
                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Amino acid substitutions of conserved residues
                                                                                                                                                                                                                                       401
                                                                 100
                                                                                                                      461
                                                                                                                                                                                                                                                                                                15
                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                        GSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGRDGAPGAPGEKGEGGRPGLP 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   site: carbohydrate
                                                                    VP-----
                                                                                                                   GFPGSKGDPGSPGPPGPAGIATKGLNGPTGPPGPPGPPGHSGEPGLPGPPGPPGPPGQAV 520
MPEGFIKAGORPSLSGTPLVSANOGVTGMPVSAFTVILSKAY--
                                                                                                                                                                                                                                    GNPGLPGPKGDPGVGGPPGLPGPVGPAGAKGMPGHNGEAGPRGAPGIPGTRGPIGPPGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6q21-6q22
                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                   31.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                        Pred. No. 5.4
4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cause Schmid metaphyseal chondrodysplasia a homotrimer
                                                                                                                                                                                                                                                                                                                                                                                   Score 418.5; DB 1;
Pred. No. 5.4e-22;
                                                                                                                                                       GPRGDPGPRGEA-----GPAGPTGPAGECS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PMID:8304336
                                                                 PRSAFSAKRSESRVPPPSDAPLPFDRVLVNE 132
                                                                                                                                                                                                                                                                                                                                                                                                          Length 680;
                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         type x collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tripeptide repeating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PID: 930014
                                                                                                                                                                                                                                                                                                                                                        67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Evans,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of the COL10A1
                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PID:g553796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G.; Grant,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            having
                                                                                                                                                                                                                                          460
           578
                                                                                                                                                                                  99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chromoso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fetal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              un 1
```

```
in Extracellular Matrix Genes, Sandell L.J. and Boyd C.D., eds., pp.79-114, Academic E A;Title: The molecular biology of collagens with short triple-helical domains.

A;Title: The molecular biology of collagens with short triple-helical domains.

A;Title: The molecular bye: manka A;Accession: $23297

A;Scatus: preliminary A;M;Accession: $23297

A;Scatus: preliminary A;M;Accession: $23297

A;Mclecule type: manka A;Residues: 1-674 cmmber: $31896; MUID:89054019; PMID:2461368

A;Title: The type X collagen gene. Intron sequences split the 5'-untranslated region a A;Reference number: $31896; MUID:89054019; PMID:2461368

A;Accession: A31896

A;Molecule type: manka A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

J, Biol. Chem. 261, 5041-5050, 1986

A;Molecule type: manka A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; Van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; Van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; Van der Rest, M.; Schmid, T.; Linsenmayer, T.; Olsen, B.R.

A;Residues: 1-75 cluv-Riniomitya, Y; Gordon, M.; Carlon, R.; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      collagen alpha 1(X) chain precursor - chicken
N;Alternate names: type X collagen
C;Species: Gallus gallus (chicken)
C;Date: 07-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 13-Aug-1999
C;Accession: S23297; A31896; S65594; S77711; T50218
R;Ninomiya, Y.; Castagoola, P.; Gerecke, D.; Gordon, M.K.; Jacenko, O.; LuValle, maguchi, N.; Olsen, B.R.
                                                                                                Š
                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
  δõ
                                                      밁
                                                                                                                                                            д
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
        205
                                                         586
                                                                                                           146
                                                                                                                                                                                                                   102
                                                                                                                                                                                                                                                                     468
                                                                                                                                                                                                                                                                                                                                                                          408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                133
                                                                                                                                                                                                                                                                                                                      74
                                                                                                                                                                                                                                                                                                                                                                                                                            14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                         PGPR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASL
     VWVQVGVGDYIGIYASIKTDSTFSGFL
                                                    RIPGLYYFSYHVHAKGTNVWVALYKNGSPVMYTYDEYQKGYLDQA--SGSAVIDLMENDQ
                                                                                                        QVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPEDQ
                                                                                                                                                         GMSFMKAGANQALTGMPVSAFTVILSKAY--PGATVPIKFDKILYNRQQHYDPRTGIFTC
                                                                                                                                                                                                                                                                                                                                                                        AGPPGLPGPVGPQGVKGVPGINGEPGPRGPSGIPGIRGPIGPPGMPGAPGAKGEAGAPGL
                                                                                                                                                                                                                                                                  PGPAGIATKGLRGPMGPPGPPGPKGNSGEPGLPGPPGPPGPPGQSTIPEGYVKGESRELS
                                                                                                                                                                                                                                                                                                                                                                                                                         AGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQHYDPRTGIFTCQIPGIYYFSYHVHVKGTHVWVGLYKNGTPVMYTYDEYTKGYLDQA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SGSAIIDLTENDQVWLQLPNAESNGLYSSEYVHSSFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                     ----PRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31.4%;
36.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sandell L.J. and Boyd C.D., eds., pp.79-114, Academic of collagens with short triple-helical domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34;
                                                                                                                                                                                                                                                                                                                   GDPGPRGEA-----GPAGPTGPAGECSVP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 416.5; DB 2
Pred. No. 7.3e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              carboxyl-terminal homology
phomotrimer; hydroxyproling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    674;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5'-untranslated region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hydroxyproline
                                                      643
                                                                                                     204
                                                                                                                                                            585
                                                                                                                                                                                                                                                                                                                                                                        467
                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                                                                                                                                         73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ,48-89,'L'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      readin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MC
                                                                                                C;Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxyl-terminal C;Keywords: coiled coil; extracellular matrix; glycoprotein; homotrimer F;1-18/Domain: signal sequence #Status predicted <SIG> F;19-674/Product: collagen alpha 1(X) chain #status predicted <MAT> F;547-673/Domain: complement Clq carboxyl-terminal homology <ClQ>
                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Accession: S13301
R;Thomas, J.T.; Kwan, A.P.L.; Grant, M.E.; Boot-Handford, Biochem. J. 273, 141-148, 1991
                                                                                                                                                                                                                                                            A;Cross-references:
C;Genetics:
                                                                                                                                                                                                                                                                                                              A; Molecule type: mRNA
A; Residues: 1-674 < THO>
                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A; Accession: S13301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                      A; Gene: COL10A1
                                                                                                                                                                                                                                                                                                                                                                                           A; Title: Isolation of cDNAs
A; Reference number: S13301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       đ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
Best Loc
Matches
                                                 Query Match
```

Local

Similarity

31.1%;

Score 411.5; DB Pred. No. 1.6e-21 4; Mismatches 8

DB 2;

Indels Length 674;

61;

Gaps

6;

EMBL: X53556; NID: g263; PIDN: CAA37624.1;

PID:g264

homolog

encoding the complete sequence MUID:91113131; PMID:1703407

of.

bovine type X collagen

13-Aug-1999

Conservative

```
complement
C; Species: 1
C; Date: 13-
collagen alpha 1(X) chain precursor - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 21-Nov-1993 #sequence_revision 23-reb-1996 #text_change
                                                           RESULT
S13301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:X66295; NID:g50228; PIDN:CAA46993.1; PID:g50229 C;Superfamily: complement subcomponent Clq chain A; complement Clq carbox F;122-245/Domain: complement Clq carboxyl-terminal homology <ClQ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R:Petry, F.; Reid, K.B.M.; Loos, Eur. J. Biochem. 209, 129-134, 19 A;Title: Isolation, sequence ana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: mRNA
A; Residues: 1-246 < PET>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ecerebellin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: S29328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         es: Mus musculus (house mouse)
13-Jan-1995 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  siochem. 209, 129-134, 1992
Isolation, sequence analysis
                                                                                                                                                                         232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              644
                                                                                                                                      243
                                                                                                                                                                                                            187
                                                                                                                                                                                                                                                                                   129
                                                                                                                                                                                                                                                                                                                        112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           103;
                                                                                                                                                                                                                                                                                                                                                            69
                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 LLYLLLIGIAAGSPPLDDNKIPSIC---PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                      LFPD
                                                                                                                                                                         VYSD
                                                                                                                                                                                                          LARVASFCDHMFN-SKQVS-SGGALLRLQRGDEVW-
                                                                                                                                                                                                                                              GESTASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFL
                                                                                                                                                                                                                                                                                 TTQY-PEANALVRENSVYTNPQGHYNPSTGKETCEVPGLYYF-VYYTSHTANLCVHLNLN
                                                                                                                                                                                                                                                                                                                    ESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKN
                                                                                                                                                                                                                                                                                                                                                        TQGPKGQKGEPGMPGHRGKNGPRGTSGLPGDPGPRGPPGEPGVEGRYKQKHQSVFTVTRQ
                                                                                                                                                                                                                                                                                                                                                                                           APGEKGEGGRPGLPGPRGDPGPRGEA---GPAGPTGPAGECSVPPR----SAFSAKRS
                                                                                                                                                                                                                                                                                                                                                                                                                                LLLLFLLAL-----PL-RSQASAGCYGIPGMPGMPGAPGKDGHDGLQGPKGEPGIPAVPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VWLQLPNSESNGLYSSEYVHSSFSGFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                      246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S29328; MUID:93011118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 412; DB 2;
Pred. No. 5.4e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-Jan-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PMID:1396691
                                                                                                                                                                                                              -LSVNDYNGMVGIEGSNSVFSGFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  clones coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   carboxyl-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                   186
                                                                                                                                                                                                                                                                                                                    171
                                                                                                                                                                                                                                                                                                                                                          128
                                                                                                                                                                                                                                                                                                                                                                                             111
                                                                                                                                                                                                                                                                                                                                                                                                                                 83
                                                                                                                                                                                                            242
                                                                                                                                                                                                                                              231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for
```

```
collagen alpha 1(X) chain precursus collagen alpha 1(X) chain succession sales collagen alpha 10-Aug-1999 c.Accession: Sales collagen alpha 1(X) chain succession sales collagen alpha 1(X) chain succession alpha 1(X) chain precursus collagen alpha 1(X) chain precursus chain precursus collagen alpha 1(X) chain precursus chain 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Residues: 1-285, /A/, 287-680 < ELI>
A; Cross·references: EMBL: X67348; NID: 950480; PIDN: CAA47763.1;
R; Elima, K.; Metsaeranta, M.; Kallio, J.; Peraelae, M.; Eerola
Blochim. Blophys. Acta 1130, 78-80, 1992
A; Title: Specific hybridization probes for mouse alpha-2(IX) & R; Reference number: $22215; MUID: 92182017; PMID: 1543751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Apte, S.S.; Olsen, B.R.
Matrix 13, 165-179, 1993
A;Title: Characterization of the mouse type
A;Reference number: S30127; MUID:93261348; i
A;Accession: S30127
A; Molecule type: DNA
A; Residues: 52-247, 'L', 249-285, 'A', 287-305, 'F', 307-416, 'S', 418-499, 'L', 501-566, 'C'
A; Cross-references: EMBL: X65121; NID: g50482; PIDN: CAA46237.1; PID: g667031
R; Summers, T.A.; Irwin, M.H.; Mayne, R.; Ballan, G.
J. Biol. Chem. 263, 581-587, 1988
A; Title: Monoclonal antibodies to type X collagen. Biosynthetic studies using an a
                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-12, Fr, 14-26, 'S', 28-247, 'L', 249-285, 'A', 287-305, 'F', 307-416, 'S',
R; Apte, S.S.; Seldin, M.F.; Hayashi, M.; Olsen, B.R.
Eur. J. Biochem. 206, 217-224, 1992
A; Title: Cloning of the human and mouse type x collagen genes and mapping of the A; Reference number: 148299; MUID:92267014; PMID:1587271
A; Accession: 148299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 385-450, 'K', 452-627
A; Cross-references: EMBL: X63013;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Reference number: A; Accession: S22215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:Z21610; R;Elima, K.; Eerola, I.; Rosati, Biochem. J. 289, 247-253, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Kong, R.Y.C.; Kwan, K.M.; Lau, E.T.; Thomas, J.T.; Boot-Ha
Eur. J. Blochem. 213, 99-111, 1993
A;Tille: Intron-exon structure, alternative use of promoter
A;Reference number: S31216; MUID:93238750; PMID:8477738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                       A; Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Title: The mouse collagen A; Reference number: S28807; A; Accession: S28807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Residues: 1-680 < KON>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Reference number: S31216; A; Accession: S31216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GNPGLPGPKGDPGIAGSPGLPGPVGPAGAKGVPGHNGEAGPRGVPGIPGTRGPIGPPGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGRDGAPGAPGEKGEGGRPGLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DLTENDQVWLQLPNAGSNGLYSPEYVHSSFSGFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLV 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RTGIFTCKIPGIYYFSYHIHVKGTHAWVGLYKNGTPVMYTYDEYIKGYLDQA--SGSAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GFPGSKGDVGTPGPPGPAGIAVKGLNGPTGPPGPPGPRGNAGEPGLPGPPGPPGPPGQVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LPEDFVKAGQRPFVSANQGVTGMPVSAFTVILSKAY--PAIGTPIPFDKILYNKQQHYDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          X gene: complete nucleotide sequence, exon structure MUID:93143676; PMID:8424763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ∕ELA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NID:g49793; PIDN:CAA79736.1; PR.; Metsaeranta, M.; Garofalo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NID: g49795;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -PRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PMID:8492743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mouse alpha-2(IX) and PMID:1543751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -GPRGDPGPRGEA-----GPAGPTGPAGECS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIDN:CAA44741.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eerola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PID:g49794
o, S.; Pera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PID:g50481
a, I.; Garc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PID:g49796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            alpha-1(X) collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R.P.; Grant,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Garofalo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peraelae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                              the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     s
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Crc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
C1HUQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; Sellar, G.C.; Blake, D.J.; Reid, K.B. Biochem. J. 274, 481-490, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Accession: S14351; A03207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Species: Homo sapiens (man)
C; Date: 22-May-1981 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement subcomponent Clq chain C precurs N; Alternate names: complement subcomponent
```

nponent Clq gamma

31-May-1996

#text_change

22-May-1998

```
A;Reference
A;Accession: S26397
A;Molecule type: protein
A;Molecule: 'SDGYFSQ',24
                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxy C;Keywords: coiled coil; extracellular matrix; glycoprotein; homotr F;1-18/Domain: signal sequence *status predicted <SIG> F;19-680/Product: collagen alpha 1(X) chain *status predicted <MAT> F;553-679/Domain: complement Clq carboxyl-terminal homology <ClQ>
                             Qy
                                                                                                   Ş
                                                                                                                                                                           δÃ
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Introns: 51/3
C; Superfamily: <
문
                                                                        밁
                                                                                                                                              밁
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Map position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Gene: Coll0a-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Residues:
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                         LOCAL
                                                                                                                                                                                                                        446
                                 177
                                                                                                                                                                                                                                                                                               392
                                                                                                                                                                                   87
                                                                                                                                                                                                                                                            45
                                                                                                                                                                                                                                                                                                                                  15
                                                                                                                                                                                                                                                                                                                                                                                         Similarity
TYDEYSKGYLDQA--SGSAIMELTENDQVWLQLPNAESNGLYSSEYVHSSFSGFLV
                                                                                                     PSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNG-ESIA 176
                                                                                                                                                                                                                        GIPGTRGPTGPPGVPGFPGSKGDPGNPGAPGPAGIATKGLNGPTGPPGPPGPRGHSGEPG
                                                                                                                                                                                                                                                                                                                                  GSPPLDDNKIPSLCPGHPGLP----
                                                                      AVGAPIPFDEILYNRQQHYDPRSGIFTCKIPGIYYFSYHVHVKGTHVWVGLYKNGTPTMY
                                                                                                                                              LPGPPGPPGPPGQAVMPDGFIKAGQRPRLSGMPLVSANHGVTGMPVSAFTVILSKAY--P
                                                                                                                                                                                   --GPAGPTGPAGECSVP----
                                                                                                                                                                                                                                                          GLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPR--
                                                                                                                                                                                                                                                                                               GEPGLNGPK-----GNPGLPGQKGDPGVGGTPGLRGPVGPVGAKGVPGHNGEAGPRGEP
                                 SFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLV 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        s26397;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , 24-26, 'KQ'
                                                                                                                                                                                                                                                                                                                                                                                       30.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MUID:88087150;
                                                                                                                                                                                                                                                                                                                                                                 Score 408; DB 2; Lei
Score 408; DB 2; Lei
Score 75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complement Clq carboxyl-terminal homolog
                                                                                                                                                                                   -----PRSAFSAKRSESRVPP 117
                                                                                                                                                                                                                                                                                                                                                                                                        Length 680,
                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                  GTPGHH-----GSQ
                                                                                                                                                                                                                                                            -GDPGPRGEA----
                                                                                                                                                                                                                                                                                                                                                                       Gaps
677
                                                                                                                                                                                                                                                                                               445
                                                                                                                                                                                                                        505
                                                                                                                                                                                                                                                          98
```

A;Map position: 1p36.3-1p34.1
A;Introns: 60/3
A;Introns: 60/3
C;Superfamily: complement subcomponent C1q chain A; complement C1q carboxy1-terminal C;Superfamily: complement pathway; glycoprotein; homodimer; hydroxylysine; hydroxyprol1 C;Keywords: complement pathway; glycoprotein; homodimer; hydroxylysine; hydroxyprol1 F;1-28/Domain: signal sequence #status predicted <SIG> A; Molecule type: protein
A; Molecule type: protein
A; Residues: 29-56; 'p', 58-65,'K',67-71,'p',73-83,'K',85-86,'D',88-89,'N',91-122 <REI>C; Comment: The first component of complement is a calcium-dependent complex of the th ivation of CIr (enzyme), Cls (proenzyme), and the other eight components of complemen C; Comment: The Clq subcomponent is composed of nine subunits, six of which are disulf dimers of the C chain. Equimolar amounts of the A, B, and C chains are found after r Biochem. J. 179, 367-371, 1979
A;Title: Complete amino acid sequences of the three collagen-like A;Reference number: A90304; MUID:80020137; PMID:486087
A;Accession: A03207 A; Reference number: S14350; A; Accession: S14351 A; Cross-references: A; Gene: GDB:C1QG R; Reid, K.B.M A; Residues: A; Molecule type: A; Status: not compared with A; Title: Characterization -245 **SEL>** GDB:128132; 6.3-1p34.1 and organization 0; MUID:91174759; conceptual OMIM: 120575 translation of the genes PMID:1706597 encoding the regions A-, ۳ present C-cha

hydroxyprolin

```
RESULT 9

A34246

collagen alpha 1(VIII) chain precursor - rabbit
C:Species: Oryctolagus cuniculus (domestic rabbit)
C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C:Accession: A34246
R:Yamaguchi, N: Benya, P.D.; van der Rest, M.; Ninomiya, Y.
J. Biol. Chem. 264, 16022-16029, 1989
A:Title: The cloning and sequencing of alphal(VIII) collagen cDNAs demonstrate that type comains similar to those of type X collagen.
A:Reference number: A34246; MUID:89380199; pMID:2476437
A:Residues: 1-744 vYAM>
A:Residue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F;29-245/Product: complement subcomponent C1q chain B #status predicted F;31-114/Domain: collagenous, triple helix <COL>
F;31-214/Domain: complement C1q carboxy1-terminal homology <C1Q>
F;32/Disulfide bonds: interchain #status experimental F;32/Disulfide bonds: interchain #status experimental F;36,39,42,45,54,63,81,93,96,99,105/Modified site: 4-hydroxyproline (Prof;57,72,75/Modified site: 5-hydroxylysine (Lys) #status experimental F;75/Binding site: carbohydrate (Lys) (covalent) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                              ΩV
                                                                                                                                                                                  밁
                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρ
Ş
                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local :
                                                                595
                                                                                                                              105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 KRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDL 168
                                                                                                                                                                                                                                                                                                          475 VPGLLGPKGEPGIPGDQGLQGPPGIPGITGPSGPIGPPGIPGPKGEPGLPGPPGFPGVGK
                                                                                                                                                                                                                                                                                                                                                                       24 IPSLC--PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58 APGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPP------RSAFSA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13
                                                                                                                                                                                                                                                                                                                                                                                                                                        93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MRPLLVLLLLGLAAGSPPLDDNKIPSLC - - PGHPGLPGTPGHHGSQGLPGRDGRDGRDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TR-QTHQPPAPNSLIRFNAVLTNPQGDYDTSTGKFTCKVPGLYYFVYHAS-HTANLCYLL
CQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPED
                                                             VKTPHAYAAKKGKNGGPAYEMPAFTAELTAPFPPVGAPIKFDRLLYNGRQNYNPQTGIFT
                                                                                                                                                                                     PGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPPTPAPQGEYLPDMGLGIDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SVFSGFLLFPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STFSGFLVYSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YRSGYKYYT --- FCGHTSKTNQYNSGGYLLRLQYGEEVW--LAVNDYYDMYGIQGS---D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VKNGESIASFFQFFGGWPKPASL-SGGAMVRLEPEDQVWVQVGVGDY---IGIYASIKTD 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IPGIRGPKGQKGEPGLPGHPGKNGPMGPPGMPGVPGPMGIPGEPGEEGRYKQKFQSVFTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LKLLLLLLLALR-----GQANTGCYGIPGMPGLPGAPGKDGYDGLPGPKGEPGIPA
                                                                                                                           ----AFSAKRSESRVP----
                                                                                                                                                                                                                                                   -----GPRGDP---GPRGE---AGPAGPTGPAGECSVPPRS------
                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30.1%;
39.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Score 399; DB 1;
; Pred. No. 4.3e-21;
33; Mismatches 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 374;
Pred. No. 7
                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                    ----PPSDAPLPFDRVLVNEQGHYDAVTGKFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .6e-19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                     62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     demonstrate that type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Pro)
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CMAT
                                                                                                                       144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       124
203
                                                             654
                                                                                                                                                                                     594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                   104
                                                                                                                                                                                                                                                                                                                                                                       74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   exper
```

```
A;Molecule type: DNA A;Residues: 1-744 <NIN>
A;Residues: 1-744 <NIN>
C;Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxyl-terminal homolog F;617-743/Domain: complement Clq carboxyl-terminal homology <ClQ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999
C;Accession: S23298
                                                                                                                                                                                                                    R;Muragaki, Y.; Shiota, C.; Inoue, M.; Ooshima, A.; Olsen, Eur. J. Blochem. 207, 895-902, 1992
A;Title: Alpha-1(VIII)-collagen gene transcripts encode a A;Reference number: S23779; MUID:92362626; PMID:1499564
                                                                                                                                                                                                                                                                                                                  collagen alpha 1(VIII) chain - mouse
C;Species: Mus musculus (house mouse)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 16-Jun-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Ninomiya, Y; Castagnola, P.; Gerecke, maguchi, N.; Olsen, B.R. in Extracellular Matrix Genes, Sandell L. A;Title: The molecular biology of collage
                                                                       A;Cross-references: EMBL:X66976; NID:g50493; PIDN:CAA47387.1; PID:g1359953 C;Superfamily: collagen alpha 1(VIII) chain; complement C1q carboxyl-terminal F;616-742/Domain: complement C1q carboxyl-terminal homology <C1Q>
                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-743 <MUR>
                                                                                                                                                                                                   A; Reference number: A; Accession: S23779
                                                                                                                                                                                                                                                                          C; Accession: S23779
R; Muragaki, Y.; Shiota, C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: S22243
A; Accession: S23298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        475 VPGLLGPKGEPGIPGDQGLQGPPGIPGITGPSGPIGPPGIPGPKGEPGLPGPPGFPGVGK 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24 IPSLC--PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93;
                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RVFLQNPSEQAAGLYAGQYVHSSFSGYLLY 742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QVWVQVGVGDYIGIYASIKTDSTFSGFLVY 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CEVPGVYYFAYHVHCKGGNVWVALFKNNEPVMYTYDEYKKGFLDQA--SGSAVLLLRPGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VKTPHAYAAKKGKNGGPAYEMPAFTAELTAPFPPVGAPIKFDRLLYNGRQNYNPQTGIFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPPTPAPQGEYLPDMGLGIDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----GPRGDP---GPRGE---AGPAGPTGPAGECSVPPRS---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RVFLQMPSEQAAGLYAGQYVHSSFSGYLLY 742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QVWVQVGVGDYIGIYASIKTDSTFSGFLYY 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----AFSAKRSESRVP----
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27.98;
                  27.4%; Score 363.5; 32.8%; Pred. No. 4.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sandell L.J. and Boyd C.D., eds., pp.79-114, Ac of collagens with short triple-helical domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35;
  35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 370; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----PPSDAPLPFDRVLVNEQGHYDAVTGKFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D.; Gordon,
                     4.1e-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        L.4e-18;
nes 80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1;
                                     DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #text_change 10-Sep-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M.K.; Jacenko,
                                     Length 743;
Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                         short-chain collagen
                                                                                                                                                                                                                                                                               B.R.; Ninomiya,
71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pp.79-114, Academic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O.; LuValle,
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104
7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                homolog
                                                                                                                                                                                                                                         polype
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P.;
```

```
RESULT
C1HUQB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Map position: 1p34.3-1p32.3 (Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxyl-terminal homology C;Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxyl-terminal homology E;1-11/Domain: amino-terminal nonhelical (fragment) #status predicted <NC2> F;12-468/Region: interrupted helical F;12-468/Region: interrupted helical predicted <NC7> F;469-635/Domain: carboxyl-terminal nonhelical #status predicted <NC7> F;508-634/Domain: complement Clq carboxyl-terminal homology <ClQ>
                                                                                                덩
                                                                                                                          õ
                                                                                                                                                                         B 5
                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                      Ω
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Muragaki, Y.; Jacenko, O.; Apte, S.; Mattei, M.G.; Ninomiya, Y.; Olsen, B. J. Biol. Chem. 266, 7721-7727, 1991
A;Title: The alpha2(VIII) collagen gene. A novel member of the short chain callegener number: A57131; MUID:91210292; PMID:2019595
A;Accession: A57131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Homo sapiens (man)
C;Date: 03-Nov-1995 #sequence
C;Accession: A57131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Gene: GDB:COL8A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-635 <MUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        collagen alpha 2(VIII) chain - human (fragment)
C; Species: Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GDB:127812; OMIM:120252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:M60832; NID:g177178; PIDN:AAA62822.1;
Ŷ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                           516
                                                                                                                                                                                                                    173
                                                                                                                                                                                                                                                                                                                                                                                                                     401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            470
                                                                                                632 L 632
                                                                                                                                    232 V 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141
                                                                                                                                                                                                                                                                                                                                                                            71 PGLPGPRGDPGPRGEAGPAG---PTGPA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 GLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                     GLQGPAGPIGPQGLPGL-KGEPGLPGPPG----EGRAGEPGTAGPRGPPGVPGSPGITGP
                                                                                                                                                                             VPATYTYDEYKKGYLDQA--SGGAVLQLRPNDQVWVQIPSDQANGLYSTEYIHSSFSGFL
                                                                                                                                                                                                    -ESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFL
                                                                                                                                                                                                                                                                                              SRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNG 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRL
                                                                                                                                                                                                                                                         PL--PASGMPVKFDRTLYNGHSGYNPATGIFTCPVGGVYYFAYHVHVKGTNVWVALYKNN
                                                                                                                                                                                                                                                                                                                                       PGLPGPPGAPGAFDETGIAGLHLPNGGVEGAVLGKGGKPQFGLGELSAHATPAFTAVLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RPGDQVFLQNPFEQAAGLYAGQYVHSSFSGYLLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GIFTCEVPGVYYFAYHVHCKGGNVWVALFKNNEPMMYTYDEYKKGFLDQA--SGSAVLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GIDGVKTPHAYAGKKGKHGGPAYEMPAFTAELTVPFPPVGAPVKFDKLLYNGRQNYNPQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PGVGKPGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPTPSPQGEYLPDMGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PGLPGVPGLLGPKGEPGIPGDQGLQGPPGIPGIVGPSGPIGPPGIPGPKGEPGLPGPPGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGDP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #sequence_revision 03-Nov-1995 #text_change 13-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27.4%;
38.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----GPRGE---AGPAGPTGPAGECSVPPR----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 363; DB
Pred. No. 3.8e
25; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -SESRVP-PPSDAPLPFDRVLVNEQGHYDAVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2;
.8e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                            -GECSVPPRSAFSAKRSE 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PID:g177179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        short chain collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                     455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                           70
                                                                                                                                                                             631
                                                                                                                                                                                                                  231
                                                                                                                                                                                                                                                                                                                                       515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          fami
                Ş
                                                     밁
                                                                                     ρ
                                                                                                                                  밁
                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Gene: GDB:ClQB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Accession: B90304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R; Reid,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Residues: 28-253 <RE1>
A; Cross-references: EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R; Reid, K.B.M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: A23422
                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                     Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genetics:
                    115
                                                         73
                                                                                                                                       13
                                                                                                64
                                                                                                                                                                           4
                                                                                                                                                                                                                                       Similarity
                                                                                   EKGEGGRPGLPGPRGDPGPRGEAGP------AGPTGPAGECSVPPRSAFSAKRSESR 114
                      VPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGE- 173
                                                           EFGEKGDPGIPGNPGKVGPKGPMGPKGGPGAPGAPGPKGESGDYKATQKIAFSATRT-IN 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           367-371,
```

```
C;Superfamily: complement subcomponent Clq chain A; complement Clq carboxyl-terminal C;Keywords: complement pathway; glycoprotein; heterodimer; hydroxylysine; hydroxyprol F;1-27/Domain: signal sequence #status predicted cSIG>
F;28-253/Product: complement subcomponent Clq chain B #status experimental <MAT>
F;38-116/Domain: conlagenous, triple helix cCOL>
F;123-249/Domain: complement Clq carboxyl-terminal homology <ClQ>
F;28/Modified site: pyrrolidone carboxylic acid (Gln) (in mature form) #status experimental F;35/38,41,53,56,65,83,86,101,104,107/Modified site: 4-hydroxyproline (Pro) #status experimental F;35,38,41,53,56,65,83,86,101,104,107/Modified site: 4-hydroxyproline (Pro) #status experimental F;35,62,78,10/Modified site: carbohydrate (Lys) (covalent) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: protein
A;Molecule type: protein
A;Residues: 136-253 <RE4>
A;Residues: 136-61x may also be present
A;Note: 176-61x may also be present
C;Comment: The first component of complement is a calcium-dependent complex of the th
ivation of C1r (enzyme), C1s (proenzyme), and the other eight components of complemen
C;Comment: The C1q subcomponent is composed of nine subunits, six of which are disulf
(see PIR:C1HUQC) chain. Equimolar amounts of the A, B, and C chains are found after r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Reid, K.B.M.; Gagnon, J.; Frampton, J.
Blochem. J. 203, 559-569, 1982
A;Title: Completion of the amino acid sequences of the A and A;Reference number: A90315; MUID:82283890; PMID:6981411
A;Accession: B90315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: A90301
A; Molecule type: protein
A; Residues: 28-99, P', 101-195 <RE3>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: protein
A;Residues: 'E',29-84,'D',86-99,'P',101-135 <RE5>
R;Reid, K.B.M.; Thompson, E.O.P.
Biochem. J. 173, 863-868, 1978
A;Title: Amino acid sequence of the N-terminal 108 amino acid A;Reference number: A90301; MUID:79041552; PMID:708376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Blochem. J. 231, 729-735, 1985
A;Title: Molecular cloning and characterization of the complementary
A;Reference number: A23422; MUID:86076906; PMID:3000358
A;Accession: B23422
A;Accession: B23422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Cross-references: GDB:119043; OMIM:120570 A; Map position: 1p36.3-1p34.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Homo sapiens (man)
C;Date: 22-May-1981 #sequence_revision 31-May-1996 #text_change 08-Dec-2000
C;Accession: B23422; A23422; B90304; A90301; B90315; A03206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Biochem. J. 179, 367-371, 1979

A; Title: Complete amino acid sequences of the three collagen-like A; Reference number: A90304; MUID: 80020137; PMID: 486087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Note: the authors translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 'HS', 1-32 <REI>
A; Note: the authors translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement subcomponent Clq chain B precursor [validated] N;Alternate names: complement subcomponent Clq beta chain
LMLLLLLGLIDISQAQLSCTGPPAIPGIPGIPGTPGPDGQPGTPGIKGEKGLPGLAGDHG
                                                    LLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPG
                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL: X03084
                                                                                                                                                27.3%;
36.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                                                                                    36;
                                                                                                              Score 362; DB
Pred. No. 1.7e
36; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               codon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               codon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for
                                                                                                                                                DB 1;
..7e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for
                                                                                                                    100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               residue
                                                                                                                                                                        Length 253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               second
                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               position
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chains
                                                                                                                    18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         regions
                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ö.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ٥
f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arg;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      subcomponent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      present
72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               they
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            င္ထ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               wer
```

```
submitted to the EMBL Data Library, March 1993
A; Reference number: S49158
A; Reference number: S49158
A; Reference number: S49158
A; Rocession: S49158
A; Status: preliminary
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-253 <SCH>
A; Cross-references: EMBL:X71127; NID:g510191; PIDN:CAA50440.1; PID:g510192
A; Cross-references: EMBL:X71127; NID:g510191; PIDN:CAA50440.1; PID:g510192
C; Superfamily: complement subcomponent Clq chain A; complement Clq carboxyl-terminal homeology <C1Q>
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-744 <MUR>
A;Cross-references: EMBL:X57527; NID:g30081;
C;Genetics:
A;Cross-references: GDB:128104; ONIM:120251
                                                                                                                                                                                                                                                                          collagen alpha 1(VIII) chain precursor - human
C;Species: Homo sapiens (man)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 13-Aug-1999
                                                                                                                                                    Eur. J. Blochem. 197, 615-622, 1991
A;Title: The complete primary structure of the human alpha-1(VIII) chain and A;Reference number: $15435; MUID:91231001; PMID:2029894
A;Accession: $15435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement protein Clq beta chain precurs C; Species: Rattus norvegicus (Norway rat) C; Date: 16-Feb-1995 #sequence_revision 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
S49158
                                                                                                                                                                                                                                                                                                                                                                                                                                   닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: S49158
R;Schwaeble, W.; Pet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                          R; Muragaki, Y.; Mattei, M.G.; Yamaguchi, N.; Olsen, B.R.; Ninomiya, Bur. J. Biochem. 197, 615-622, 1991
                                                                                                                                                                                                                                                             C; Accession: S15435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14
                                                                                                                                                                                                                                                                                                                                                                                                                                   231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        106 FSAKRSESRYPPPSDAPLPFDRYLVNEQGHYDAYTGKFTCQVPGVYYFAVHATVYRASLQ 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62 LPGLAGDHGELGEKGDAGIPGIPGKVGPKGPVGPKGAPGPPGPRGPKGGSGDYKATQKVA 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein Clq beta chain precursor - rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9 LTPLL-LLLLGL-----LHVSWAQSSCTGSPGIPGVPGIPGVPGSDGKPGTPGIKGEKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MRPLLVLLLLGLAAGSPPLDDNKIPSLC---PGHPGLPGTPGHHGSQGLPGRDGRDGRDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95;
                                                                                                                                                                                                                                                                                                                                                                                                                              :|: : :| !:|||:: |
SLLGVEGA---NSIFTGFLLFPD 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DYIGIYASIKTDSTFSGFLVYSD 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FDLVKNG-----ESIASF-----FQFFGGWPKPASLSGGAMVRLEPEDQVWVQ-VGVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APGAP-----GEKGEGGRPGLP---GPRGDPGPRGEAGPAGPTGP---AGECSVPPRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VNIVRGRDRDRMQKVLTFCDYAQNTFQV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FSALRTVNSALRPNQA-IRFEKVITNVNDNYEPRSGKFTCKVPGLYYFTYHAS-SRGNLC 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LFPD 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VYSD 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AQKVVTFCDY -- AYNTFQVTTGGMVLKLEQGENVFLQ -- ATDKNSLLGMEGANSIFSGFL 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --SIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Petry,
                                                             EMBL: x57527; NID: g30081; PIDN: CAA40748.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                F.; Loos, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27.2%; Score 360.5; DB 2 36.1%; Pred. No. 2.2e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-May-1995 #text_change 20-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --TTGGVVLKLEQEEVVHLQATDKN 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 253;
                                                               PID: 930082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13;
                                                                                                                                                                                           assignment
```

```
A:Map position: 3q11.1-3q13.2
C:Superfamily: collagen alpha 1(VIII) chain; complement C1q carboxyl-terminal homolog
F:1-20/Domain: signal sequence #status predicted <SIG>
F:21-744/Product: collagen alpha 1(VIII) chain #status predicted <MAT>
 밁
                               Š
                                                                     밁
                                                                                                        δÃ
                                                                                                                                                片
                                                                                                                                                                             δÃ
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                  Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;118-571/Region: interrupted helical
F;572-744/Region: carboxyl-terminal nonhelical
                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;617-743/Domain: complement Clq carboxyl-terminal homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F;21-117/Region: amino-terminal nonhelical
                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                                                                                               713 RVFLQMPSEQAAGLYAGQYVHSSFSGYLLY
                                     204
                                                                       655 CEVPGVYYFAYHVHCKGGNVWVALFKNNEPVMYTYDEYKKGFLDQA--SGSAVLLLRPGD
                                                                                                          145 CQVPGVYYFAVHATVYRASLQFDLVKNGESIA-SFFQFFGGWPKPASLSGGAMVRLEPED
                                                                                                                                                595 VKPPHATGAKKGKNGGPAYEMPAFTAELTAPFPPVGGPVKFNKLLYNGRQNYNPQTGIFT
                                                                                                                                                                                                                                                                                                475. VPGLLGPKGEPGIPGDQGLQGPPGIPGIGGPSGPIGPPGIPGPKGEPGLPGPPGFPGIGK 534
                                                                                                                                                                                                                                                                                                                                      24 IPSLC--PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLP-----
                                                                                                                                                                                                                                                                                                                                                                               ; 68
                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                 QVWVQVGVGDYIGIYASIKTDSTFSGFLVY
                                                                                                                                                                                                                         PGVAGLHGPPGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPPTPPPQGEYLPDMGLGIDG
                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                           27.1%;
33.0%;
                                                                                                                                                                                                                                                                                                                                                                           33;
                                                                                                                                                                                                                                                                                                                                                                                             Score 359; DB 2;
Pred. No. 8.5e-18;
                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                   233
                                                                                                                                                                                                                                                                                                                                                                                                             Length 744;
                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    <C10>
                                                                                                                                                                                                                                                                                                                                                                           62;
                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                       712
                                                                                                            203
                                                                                                                                                654
                                                                                                                                                                                                                         594
                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                        74
                                                                                                                                                                                                                                                                                                                                                                           6;
```

Search completed: June 13, 2003, 16:02:34
Job time: 42 secs

THIS PAGE BLANK (USPTO)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
    Pred. No. is the number of results predicted by score greater than or equal to the score of the and is derived by analysis of the total score di
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                           650
433.5
428.5
428.5
428.5
428.5
424
424
424
424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                     Issued_Patents_AA:*

1: /cgn2_6/ptodata/1,

2: /cgn2_6/ptodata/1,

3: /cgn2_6/ptodata/1,

4: /cgn2_6/ptodata/1,

5: /cgn2_6/ptodata/1,

6: /cgn2_6/ptodata/1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLOSUM62
   Match
                                                                                                                                                                                                                                                                                                                   Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      262574 segs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-944-944-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            June 13,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MRPLLVLLLLGLAAGSPPLD......DSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version Copyright (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                                                                                    /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/Packfiles1.pep:*
                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2003, 15:59:26; Search time 15 Seconds
(without alignments)
476.651 Million cell updates/sec
                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29422922 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapext 0.5
                               US-09-140-804-2
US-09-336-536-3
US-09-336-536-4
US-09-336-536-14
US-09-336-536-14
US-09-336-536-14
US-09-336-536-14
US-09-336-536-14
US-09-140-804-8
US-09-118-408-3
US-09-118-408-3
US-09-140-804-3
US-09-140-804-3
US-09-336-536-20
US-09-336-536-20
US-09-336-536-20
US-09-336-536-20
US-09-336-536-20
US-09-336-536-33
US-09-336-536-33
US-09-336-536-13
                                                                                                                                                                                                                                                                                                        ä
                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            տ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .1.6
                                                                                                                                                                                                                                                                                                                                                           by chance to have a
the result being printed,
e distribution..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  262574
                                                                                                                                                                                           Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                     Description
           sequence
                                                                                                                                                                                                                                                                                  Sequence
                                                                          2, Appli
295, Appl
105, Appl
107, Appli
11, Appli
11, Appli
12, Appli
13, Appli
13, Appli
13, Appli
13, Appli
14, Appli
17, Appli
18, Appli
19, Appli
11, Appli
11, Appli
120, Appli
120, Appli
121, Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                         밁
                                                                                                                            δÃ
                                                                                                                                                  밁
                                                                                                                                                                    Qγ
                                                                                                                                                                                            밁
                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
US-09-140-804-2
                                                                                                                                                                                                                                                                                                                             US-09-140-804-2
                                                                                                                                                                                                                                                                                                                                    ; SEQ ID NO 2
; LENGTH: 243
; TYPE: PRT
; ORGANISM: Homo s
                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                    241
                                                                                                         181
                                                                                                                              181
                                                                                                                                                                                                                                                                                           Similarity
                                                                                    VFA 243
                                                                 VFA
                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US/09140804
```

219.5	219.5	219.5	221	223	223	224	228	228	229.5	229.5	229.5	240	243.5	251.5	257.5	266.5	276
16.6	16.6	16.6	16.7	16.8	16.8	16.9	17.2	17.2	17.3	17.3			18.4	19.0	19.4	20.1	20.8
1078	1078	1057	124	281	281	228	684	684	281	281	280	161	130	130	130	198	236
4	ω	ω	4	4	4	4	w	μ	4	4	4	4	4	4	4	4	4
us-09-500-811-21	US-08-963-825-21	US-08-931-820-4	US-09-485-316A-9	US-09-506-855-44	US-09-118-408-44	US-09-219-849-38	US-09-073-663-12	US-08-555-669-12	US-09-506-855-2	US-09-118-408-2	US-09-247-155-178	US-09-415-551-3	US-09-485-316A-11	US-09-485-316A-12	US-09-485-316A-13	US-09-188-930-138	US-09-140-804-6
Sequence 21, Appl	Sequence 21, Appl	Sequence 4, Appli	Sequence 9, Appli	-	Sequence 44, Appl	Sequence 38, Appl	-		Sequence 2, Appli	Sequence 2, Appli	Sequence 178, App	Sequence 3, Appli	Sequence 11, Appl	Sequence 12, Appl	Sequence 13, Appl	Sequence 138, App	Sequence 6, Appli

ALIGNMENTS

```
RESULT 2
US-09-316-536-3
; Sequence 3, Application US/09336536
; Patent No. 6406884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
APPLICANT: Humes, Jacqueline M.
APPLICANT: Humes, Jacqueline M.
APPLICANT: HUMENTON: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FASISEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                  1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                          FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                              FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                         MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1325; DB 4;
Pred. No. 9.5e-114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                      180
```

```
APPLICANT: Leiby, K.
APPLICANT: MCRAY, C.
APPLICANT: MCRAY, C.
APPLICANT: BOSSONG, S.
APPLICANT: BOSSONG, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THE
FILE REFERENCE: 7853-144
CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
      Ş
                                    밁
                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LENGTH: 243
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-336-536-3
                                                                                                                                                     ; ORGANISM: Rat
US-09-188-930-295
                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-188-930-295
                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                          Matches
                                                                                                                        Query Match
                                                                                                                                                                                                             SEQ ID NO 295
                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                 APPLICANT: Strachan, Lorna
APPLICANT: Sleeman, Matthew
APPLICANT: Onrust, Rene
APPLICANT: Murison, James Greg
APPLICANT: Murison, James Greg
TITLE OF INVENTION: Compositions Isolated from Skin
TITLE OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000 1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT FILING DATE: 1998-11-09
                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 348
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Watson, James
                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                            LENGTH: 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                            Local
61 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              243;
                                                                                                                                                                                                                                                                                                                                                                                                                 295, Application US/09188930A
. 6150502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGRPG
                                                                                                         Similarity
                                                    MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKKSESRVPPPSD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                  MRPLLALLLLGLASGSPPLDDNKIPSLCPGQPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; ilarity 100.0%; Conservative
                                                                                                         95.9%;
95.1%;
                                                                                          Score 1271; DB 4;
Pred. No. 8.2e-109;
5; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1325;
Pred. No. 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9.5e-114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THEREOF
                                                                                                                     Length 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 243;
                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                  60
                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
      CURRENT APPLICATION NUMBER: US/09/336,536 CURRENT FILING DATE: 1999-06-18
```

```
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
; LEGH: 243
; TYPE: PRT
; ORGANISM: Mus musculus
US-09-336-536-10
                                                                                                                                                  US-09-336-536-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-336-536-10
Sequence 4, Application US/09336536
Patent No. 6406884
GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: MCRAY, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No. 6406884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Leiby, K.
APPLICANT: MCKBY, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                          241 VFA 243
                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            228;
                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                     FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLYYSDWHSSP 240
                                                                                                                                                                                                                                                                                                                                                                                          APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MRPLLALLLLGLVSGSPPLDDNKIPSLCPGQPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MRPLLYLLLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VFA
                                                                                                                                                                                                                                                                                                 YFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                       TPLPFDRVLLNEQGHYDPTTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGQSIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                               APGEKGEGGRPGLPGPRGEPGPRGEAGPMGAIGPAGECSVPPRSAFSAKRSESRVPPPAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TPLPFDRVLLNEQGHYDATTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGQSIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/09336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1258; DB 4;
Pred. No. 1.3e-107;
6; Mismatches 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                 240
```

ა .

```
; NUMBER OF SEQ ID NOS: 75
; SOFTWARE: PATENTIN VET. 2.
; SEQ ID NO 4
; LENGTH: 228
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-336-536-4
                                                                                               δÃ
                                                                                                                               밁
                                                                                                                                                    ρy
                                                                                                                                                                                       밁
                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                     Ωy
                                                                                                                                                                                                                                                                                                                                                        ; TYPE: PRT; ORGANISM: Mus musculus US-09-336-536-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
US-09-336-536-7; Sequence 7, Application US/09336536
                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-336-536-11
                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF FILE REFERENCE: 7853-144
CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 11
LENGTH: 228
                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No. 6406884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Leiby, K. APPLICANT: McKay, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                 121
                                                                                                                                                           136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136
                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 MYRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSPVFA 228
                                                                                                                                                                                                                                                                                                     216;
                                                                                                                                                                                        61
                                                                                                                                                                                                                                                            16 SPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                            \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76 PRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGH 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 SPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPG
                                                                                                                              MVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSPVFA
                                                                                         MVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSPVFA 243
                                                                                                                                                                                       PRGEPGPRGEAGPMGAIGPAGECSVPPRSAFSAKRSESRVPPPADTPLPFDRVLLNEQGH
                                                                                                                                                                                                    PRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGH 135
                                                                                                                                                                                                                                            SPPLDDNKIPSLCPGQPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESTASFFQFFGGWPKPASLSGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQFFGGWPKPASLSGGA 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09336536
                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                               90.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                 Pred. No. 2.4e.
5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1256; DB 4;
Pred. No. 1.8e-107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                  DB 4;
2.4e-102;
nes 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                         228
                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                      75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                    ç
```

```
Ωy
                         Ş
                                                          밁
                                                                                  δÃ
                                                                                                                    멍
                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
US-09-336-536-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
밁
                                                                                                                                                                                                                                               ; ORGANISM: Mus musculus 
US-09-336-536-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens US-09-336-536-7
                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 14
SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: MCKay, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7
LENGTH: 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No. 6406884
GENERAL INFORMATION:
                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 14, Application Patent No. 6406884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 128; Conserv
                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Leiby, K.
APPLICANT: MCKBY, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                         ENGTH:
                                                                                                                                                                                                    Local Similarity
121
                                                       121
                             225
                                                                                                                                                      105 AFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASL 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          225 STFSGFLV 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      165 QFDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTD 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      105 AFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                       \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASL
                                                                                                                                                                                                                                                                                             128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6406884
                                                                                                                      STFSGFLV 128
                           STFSGFLV 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STESGFLV 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QFDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTD 120
                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          50.9%; 50.
100.0%; Pr
                                                                                                                                                                                                  49.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US/09336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 675; DB 4;
Pred. No. 1.2e-54;
                                                                                                                                                                                   4; Mismatches
                                                                                                                                                                                                Score 650; DB 4;
Pred. No. 2.3e-52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                Length 128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 128
                                                                                                                                                                                   Indels
                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
```

RESULT 9 US-08-463-911-2

```
US-09-140-804-8
                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; MOLECULE TYPE: US-08-463-911-2
                                                                                                                                                                                            밁
                                                                     Sequence 8, Application US/09140804 Patent No. 6197930 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No.
APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (617) 861-95
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/463,911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS: ADDRESSE: Hamilton, Brook, Smith & Reynolds, P.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 247 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: (617) 861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,:
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 / Match 32.7%;
Local Similarity 40.6%;
nes 102; Conservative 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Lexington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                            225
                                                                                                                                                                                                                                                               176
                                                                                                                                                                                                                                                                                                                               118
                                                                                                                                                                                            235
                                                                                                                                                                                                                                                                             166 FDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGDYIGIYASIKTD 224
                                                                                                                                                                                                                                                                                                                                                                106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2, Application US/08463911
o. 5869330
                                                                                                                                                                                                                                                                                                                                                                                                  63
                                                                                                                                                                                                                                                                                                                                                                                                                               55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MRPLLVLLLL-GLAAGSPPLDDNKIPSLCPGHPG-----LPGTPGHHGSQGLPGRDGRDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   amino acid
                                                                                                                                                                                                                                                                                                                                                  FSAKRSESRVPPPSDAPLPFDRVLVNEOGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQ 165
                                                                                                                                                                                                                                                           VSLFKKDKAVLFTYDQYQE-KNVDQASGSVLLHLEVGDQVWLQVYGDGDHNGLYADNVND
                                                                                                                                                                                            STFTGFLLYHD 245
                                                                                                                                                                                                                            STFSGFLVYSD 235
                                                                                                                                                                                                                                                                                                                              FSV-GLETRVTVP-NVPIRFTKIFYNQQNHYDGSTGKFYCNIPGLYYFSYHITVYMKDVK
                                                                                                                                                                                                                                                                                                                                                                                                                               RDGAPGAPGEKGEGGRPGLPGPRGD-----PGPRGEAGPAGPTGPAGECSVPPRSA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LQALLFLLILPSHAEDDVTTTEELAPALVPPPKGTCAGWMAGIPGHPGHNGTPGRDGRD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                              ----GTPGEKGEKGDAGLLGPKGETGDVGMTGAEGPRGFPGTPGRKGEPGEAAYMYRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (617)
(617)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lodish,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scherer, Philipp E.
Lodish, Harvey F.
Lodish, Harvey F.
VENTION: A NOVEL SERUM PROTEIN PRODUCED
VENTION: EXCLUSIVELY IN ADIPOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  861-9540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 433.5; DB 2
Pred. No. 3.4e-32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WHI95-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                              117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
```

```
밁
                             δÃ
                                                                   밁
                                                                                                   Ş
                                                                                                                                       밁
                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
US-09-118-408-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                     US-09-118-408-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-140-804-8
                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: FastSEQ
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3, Application US/09118408A Patent No. 6265544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 101;
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
TILE REFERENCE: 97-30
CURRENT APPLICATION NUMBER: US/09/118,408A
CURRENT FILING DATE: 1998-07-17
EARLIER APPLICATION NUMBER: 60/053,154
EARLIER FILING DATE: 1997-07-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                        LENGTH: 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 247
                                                                                                                                                                                                               101;
                                  106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           235
                                                                     63
                                                                                                      55 RDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGP-----TGPAGECSVPPRSA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MRPLLVLLLL-GLAAGSPPLDDNKIPSLCPGHPG-----LPGTPGHHGSQGLPGRDGRDG
                                                                                                                                         LQALLFLLILPSHAEDDVTTTEELAPALVPPPKGTCAGWMAGIPGHPGHNGTPGRDGRD-
                      FSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQ 165
                                                                                                                                                                          MRPLLVLLLL-GLAAGSPPLDDNKIPSLCPGHPG-----LPGTPGHHGSQGLPGRDGRDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGDYIGIYASIKTD 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LQALLFLLILPSHAEDDVTTTEELAPALVPPPKGTCAGWMAGIPGHPGHNGTPGRDGRD-
                                                                     ----GTPGEKGEKGDAGLLGPKGETGDVGMTGAEGPRGFPQTPGRKGEPGEAAYMYRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STFTGFLLYHD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VSLFKKDKAVLFTYDQYQE-KNVDQASGSVLLHLEVGDQVWLQVYGDGDHNGLYADNVND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQ 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----GTPGEKGEKGDAGLLGPKGETGDVGMTGAEGPRGFPQTPGRKGEPGEAAYMYRSA 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGP-----TGPAGECSVPPRSA 105
FSV-GLETRVTVP-NVPIRFTKIFYNQQNHYDGSTGKFYCNIPGLYYFSYHITVYMKDVK 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STFSGFLVYSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FSV-GLETRVTVP-NVPIRFTKIFYNQQNHYDGSTGKFYCNIPGLYYFSYHITVYMKDVK 175
                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                         for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             32.38;
                                                                                                                                                                                                                              32.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            235
                                                                                                                                                                                                           32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              32;
                                                                                                                                                                                                             Score 428.5; DB 4;
Pred. No. 9.7e-32;
2; Mismatches 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 428.5; DB Pred. No. 9.7e-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                  247;
                                                                                                                                                                                                               25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25;
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                     117
                                                                                                                                         62
                                                                                                                                                                            54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              234
```

```
US-08-463-911-7
; Sequence 7, Application US/08463911
; Patent No. 5869330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-506-855-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 3
LENGTH: 247
TYPE: PRT
ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence 3, Application US/09506855
Patent No. 6448221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 32.3%; Score 428.5; DB 4; Best Local Similarity 40.2%; Pred. No. 9.7e-32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/506,855
CURRENT FILING DATE: 2000-02-17
NUMBER OF SEQ ID NOS: 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Lasser, Gerald W.
TITLE OF INVENTION: TANTON
PITTLE OF TANTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: INHIBITORS FOR USE IN HEMOSTASIS TITLE OF INVENTION: IMMUNE FUNCTION FILE REFERENCE: 99-12
                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                     NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                              APPLICANT: Scherer, Philipp E.
APPLICANT: Lodish, Harvey F.
TITLE OF INVENTION: A NOVEL SERUM PROTEIN PRODUCED
TITLE OF INVENTION: EXCLUSIVELY IN ADIPOCYTES
COMPUTER READABLE FORM:
                                    CITY: Lexington
STATE: Massachusetts
COUNTRY: USA
                                                                                               STREET:
                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   225 STFSGFLVYSD 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          176 VSLFKKDKAVLFTYDQYQE-KNVDQASGSVLLHLEVGDQVWLQVYGDGDHNGLYADNVND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  166 FDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGDYIGIYASIKTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63 -----GTPGEKGEKGDAGLLGPKGETGDVGMTGAEGPRGFPQTPGRKGEPGEAAYMYRSA 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55 RDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGP-----TGPAGECSVPPRSA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MRPLLVLLLL-GLAAGSPPLDDNKIPSLCPGHPG-----LPGTPGHHGSQGLPGRDGRDG 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 STFSGFLVYSD 235
|||:||:| |
5 STFTGFLLYHD 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQ 165
                                                                                                                                                                                                                                                                                                                                                                                                             STFTGFLLYHD 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VSLFKKDKAVLFTYDQYQE-KNVDQASGSVLLHLEVGDQVWLQVYGDGDHNGLYADNVND 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FDLVKNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGDYIGIYASIKTD 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FSV-GLETRYTVP-NVPIRFTKIFYNQQNHYDGSTGKFYCNIPGLYYFSYHITVYMKDVK 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LQALLFLLILPSHAEDDVTTTEELAPALVPPPKGTCAGWMAGIPGHPGHNGTPGRDGRD-
                                                                                                 ?E: Hamilton, Brook, Smith & Reynolds,
Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
```

```
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QΨ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-463-911-7
                                                                              ; ORGANISM: Homo sapiens
US-09-140-804-3
                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-140-804-3
                                                                                                                                                        SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3, Application US/09140804 Patent No. 6197930
Best Local Similarity 40.5 Matches 106; Conservative
                                                                                                                                                                        EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
                                                                                                                                                                                                                                                                                                                                         APPLICANT: Sheppard, Paul O. APPLICANT: Humes, Jacqueline
                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (617) 861-9540 INFORMATION FOR SEQ ID NO: 7:
                                                                                                                     TYPE: PRT
                                                                                                                                   LENGTH: 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (617) 861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214 YIGIYASIKTDSTFSGFLVYSD 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              105 GEGAYVYRSAFSV-GLETYVTIP-NMPIRFTKIFYNQQNHYDGSTGKFHCNIPGLYYFAY 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96 GECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAV 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51 GAPGRDGRD-----GTPGEKGEKGDPGLIGPKGDIGETGVPGAEGPRGFPGIQGRKGEP 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45 GLPGRDGRDGAPGAPGEKGEGGRPGLPGPRGD-----PGPRGEAGPAGPTGPA 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6 VLLLLGLAAGSPPLDDNKIPSLCPGH------PG-----LPGTPGHHGSQ 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RNGLYADNDNDSTFTGFLLYHD 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HITVYMKDVKVSLFKKDKAMLFTYDQYQENNVDQA--SGSVLLHLEVGDQVWLQVYGEGE 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HATVYRASLQFDLVKNGES-IASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGD 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VLLLLAL-----PGHDQETTTQGPGVLLPLPKGACTGWMAGIPGHPGHN 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               244 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                       Jacqueline M.
                  32.0%; Score 424; DB 4; 40.5%; Pred. No. 2.5e-31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/08/463,911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26;
26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 424; DB 2; 1
Pred. No. 2.5e-31;
6: Mismatches 72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WHI95-05
  Mismatches
                                     DB 4; Length 244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 244;
Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
  58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10;
10;
```

```
Search completed: June 13, 2003, 16:02:56 Job time: 17 secs
                                                                                                             Š
                                                                                                                                                   밁
                                                                                                                                                                                Q
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                                     ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; SEQ ID NO 20
; LENGTH: 244
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-336-536-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
US-09-336-536-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 32.0%; Score 424; DB 4; Length 244; Best Local Similarity 40.5%; Pred. No. 2.5e-31; Matches 106; Conservative 26; Mismatches 72; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20, Application US/09336536
Patent No. 6406884
GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: Bossone, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                          156 HATVYRASLQFDLVKNGES-IASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQV-GVGD 213
                                                                      214 YIGIYASIKTDSTFSGFLVYSD 235
|:|| ||||:|| |
221 RNGLYADNDNDSTFTGFLLYHD 242
                                                                                                                                                                                                                      105 GEGAYYYRSAFSV-GLETYVTIP-NMPIRFTKIFYNQQNHYDGSTGKFHCNIPGLYYFAY 162
                                                                                                                                               163 HITVYMKDVKVSLFKKDKAMLFTYDQYQENNVDQA--SGSVLLHLEVGDQVWLQVYGEGE 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               214 YIGIYASIKTDSTFSGFLVYSD 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221 RNGLYADNDNDSTFTGFLLYHD 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    156 HATVYRASLQFDLVKNGES-IASFFQFFGGWPKPASLSGGAMVRLEPEDQVWYQV-GVGD 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96 GECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAV 155
                                                                                                                                                                                                                                                                                             45 GLPGRDGRDGAPGAPGEKGEGGRPGLPGPRGD------PGPRGEAGPAGPTGPA 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 VLLLLAL------PGHDQETTTQGPGVLLPLPKGACTGWMAGIPGHPGHN 50
                                                                                                                                                                                                                                                                                                                                                                                                     6 VLLLLGLAAGSPPLDDNKIPSLCPGH------PG------LPGTPGHHGSQ 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HITVYMKDVKVSLFKKDKAMLFTYDQYQENNVDQA--SGSVLLHLEVGDQVWLQVYGEGE 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAV 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VLLLLGLAAGSPPLDDNKIPSLCPGH-----PG-----LPGTPGHHGSQ 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----PGHDQETTTQGPGVLLPLPKGACTGWMAGIPGHPGHN 50
                                                                                                                                                                                                                                                                                                                                                                                                                                           58;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
```

Title: Perfect some Sequence:

score:

US-09-944-944-41 1377

gactagttctcttggagtct..

OM nucleic

nucleic search, using sw model

Copyright

GenCore version (c) 1993 - 2003

5.1.6 Compugen

8::

June

2003, 12:43:05 ; Search time 79 Seconds

5345

(without alignments) 5345.492 Million cell

Scoring table:

OLIGO_NUC Gapop 60.0 ,

Gapext

60

441362 seqs,

153338381 residues

Word

size

0

Total number of

hits satisfying

chosen

parameters:

Post-processing: Listing first 45

summaries

Issued_Patents_NA:*

1: /cgn2_6/ptodata/1

2: /cgn2_6/ptodata/1

3: /cgn2_6/ptodata/1

4: /cgn2_6/ptodata/1

5: /cgn2_6/ptodata/1

6: /cgn2_6/ptodata/1

/cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*

Maximum

DB DB

seq

| length: | length:

2000000000

```
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       updates/sec
                                           28, Appl
32, Appl
30, Appl
30, Appl
35, Appl
43, Appl
44, Appl
47, Appl
47, Appl
48, Appl
49, Appl
40, Appl
41, Appl
42, Appl
42, Appl
43, Appl
45, Appl
46, Appl
47, Appl
48, Appl
49, Appl
41, Appl
41, Appl
42, Appl
43, Appl
45, Appl
46, Appl
47, Appl
48, Appl
49, Appl
40, Appl
41, Appl
41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/09140804

Patent No. 6197930

GENERAL INFORMATION:

APPLICANT: Sheppard, Paul O.

APPLICANT: Humes, Jacqueline M.

TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS

FILE REFERENCE: 97-49

CURRENT APPLICATION NUMBER: US/09/140,804

CURRENT FILING DATE: 1998-08-26

EARLIER APPLICATION NUMBER: 60/056,983

EEARLIER FILING DATE: 1997-08-26

NUMBER OF SEQ ID NOS: 47

SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                      Ş
                                                                                                                                                    뮹
                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                    ΩV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; NAME/KEY: CDS
; LOCATION: (198)...(926)
US-09-140-804-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
US-09-140-804-1
                                             Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Sim
Matches 1305;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ
SEQ ID NO 1
LENGTH: 1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: HOMO FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  195
                                                                                                                                                                                                                                                                                                        164
                                                                                                                                                                                                                                                                                                                                                                                                               104
                                                                                                                                                                                                                                                                                                                                                              75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               333331131
3333331131
33333331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                           GACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGC
                                                                                                                                                                                  TCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGC
                                                                                                                                                                                                                                                                                                                                                         CACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGGACGGCCGCGCCCC
                                                                                                                                                       94.8%; Silarity 100.0%; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  748
900
1490
1490
1558
2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 score 1305; D.
s; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-484-332C-3

US-09-248-335-61

US-08-964-127-3

US-08-96-692-3

US-08-455-550-7

US-08-113-646A-40

US-08-113-646A-41

US-08-113-646A-41

US-08-113-646A-41

US-08-113-646A-41

US-08-37-078A-1

PCT-US94-04706-1

US-08-341-568-3

US-08-688-988-44

US-08-688-988-44

US-08-24-759-7

US-09-248-335-7

US-09-257-135-6

US-09-257-13-506

US-09-328-111-506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3, Appli
3, Appli
3, Appli
1, Appli
1, Appli
1, Appli
40, Appli
41, Appli
1, Appli
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                              134
403
                                                                                                                                                                                                                                                        194
                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                                                                                                                                                               74
                                                                                                                                                    254
                                                                                                                                                                                                    283
                                                                                                                                                                                                                                                                                                        223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   103
```

Result No.

Match Query

Length

Description

Sequence Sequence

Sequence Sequence

C

51 50 50 65 65 68 63 72 72 72 74 923 11 923 11 28 23 28 23 28 23 73 28 23

114 115 117 118 119 119 120 221 221 23 24 27

sequence

იი

US-09-140-804-1
US-09-336-336-1
US-09-336-336-2
US-09-140-804-29
US-09-140-804-35
US-09-140-804-35
US-09-140-804-43
US-09-140-804-43
US-09-140-804-43
US-09-140-804-42
US-09-140-804-42
US-09-140-804-42
US-09-140-804-33
US-09-140-804-33
US-09-136-536-8
US-09-336-536-9
US-09-336-536-1
US-08-93-333-15
US-08-93-333-15
US-08-93-333-15
US-08-93-333-15
US-08-93-333-15
US-08-93-333-15
US-08-93-333-15
US-08-93-333-15
US-08-333-15
US-08-333-15

Sequence Sequence Sequence Sequence

Sequence Sequence

Sequence

Sequence Sequence Sequence Sequence Sequence

ဂ ဂ

```
RESULT 2
US-09-336-536-1
; Sequence 1, Application U;
; Patent No. 6406884
; GENERAL INFORMATION:
; APPLICAT: Leiby, K.
                                                     β S
                                                                      β δ
                                                                                            45 da 55
                                                                                                                                        В
                                                                                                                                                S B
                                                                                                                                                                      04 pp
                                                                                                                                                                                                                                     B 64 B
                                                                                                                                                                                                                                                                                                                                                                                        δō
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                               1155
                                                                                                                     1095
                                                                                                                                                     1064
                                                                                                                                                                          1004
                                                                                                                                                              975
                                                                                                                                                                                            944
                                                                                                                                                                                                                             795
                                                                                                                                                                                                                                        824
                                                                                                                                                                                                                                                                       675
                                                                                                                                                                                                                                                                                                     644
                                                                                                                                                                                                                                                                                                                                                            435
                                                                                                                                                                                    915
                                                                                                                                                                                                         855
                                                                                                                                                                                                                    884
                                                                                                                                                                                                                                                   735
                                                                                                                                                                                                                                                            764
                                                                                                                                                                                                                                                                                             615
                                                                                                                                                                                                                                                                                                                  555
                                                                                                                                                                                                                                                                                                                                       495
                                                                                                                                                                                                                                                                                                                                                 524
                                                                                                                                                                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                  704
                                                                                                                                                                                                                                                                                                                                                                       464
                                                                                                                                                                                                                                                                                                                                                                                 375
                                                     CCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTCA
                                                                         GTGTGCTGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGG
                                                                                                                                                                                   GTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGA
                                                                                                                                         TAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCAAGGAATGGGAACAGTGGCT
                                                                                                                                                              ACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTC
                                                                                                                                                                                                                                                                                                                 CCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                GGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGAC
                                                                                                                                                                                                                                                                                                                                            GTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCT
                                                                                                                                                                                                                                                                                                                                       GTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                      US/09336536
                                                               1348
                                                                                                          1243
                                                                                                                     1154
                                                                                                                              1183
                                                                                                                                         1094
                                                                                                                                                              1034
                                                                                                                                                                        1063
                                                                                                                                                                                             1003
                                                                          1274
                                                                                               1214
                                                                                                                                                                                    974
                                                                                                                                                                                                         914
                                                                                                                                                                                                                  943
                                                                                                                                                                                                                                        883
                                                                                                                                                                                                                                                             823
                                                                                                                                                                                                                                                                       734
                                                                                                                                                                                                                                                                                                      703
                                                                                                                                                                                                                                                                                                                 614
                                                                                                                                                                                                                                                                                                                           643
                                                                                                                                                                                                                                                                                                                                                 583
                                                                                                                                                                                                                                                                                                                                                                                434
                                                                                                                                                                                                                              854
                                                                                                                                                                                                                                                   794
                                                                                                                                                                                                                                                                                  763
                                                                                                                                                                                                                                                                                            674
                                                                                                                                                                                                                                                                                                                                      554
                                                                                                                                                                                                                                                                                                                                                            494
                                                                                                                                                                                                                                                                                                                                                                                           463
                                                                                                                                                                                                                                                                                                                                     APPLICANT: MCKAY, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND US
FILE REFERENCE: 7853-144
CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 1
LENGTH: 1338
TYPE: DNA
ORGANISM: Homo sapiens
US-09-336-536-1
         8 8
                                      δ
                           밁
                                                    日
                                                           δõ
                                                                     뮹
                                                                                δõ
                                                                                            B 64 B
                                                                                                                           δÃ
                                                                                                                                        밁
                                                                                                                                                ő
                                                                                                                                                           밁
                                                                                                                                                                     δδ
                                                                                                                                                                                          δ
                                                                                                                                                                                                        В
                                                                                                                                                                                                                δ
                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                     δõ
                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                    ő
                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 1289
                                                    677
                   837
                              737
                                        777
                                                                                                                                                                                                                                                                                                                  cal Similarity
1289; Conserv
         797
                                                              717
                                                                         617
                                                                                    657
                                                                                              557
                                                                                                                    497
                                                                                                                              537
                                                                                                                                         437
                                                                                                                                                   477
                                                                                                                                                                        417
                                                                                                          597
                                                                                                                                                               378
                                                                                                                                                                                    318
                                                                                                                                                                                             357
                                                                                                                                                                                                         258
                                                                                                                                                                                                                   297
                                                                                                                                                                                                                             198
                                                                                                                                                                                                                                        237
                                                                                                                                                                                                                                                  138
                                                                                                                                                                                                                                                             177
                                                                                                                                                                                                                                                                                 117
                                                                                                                                                                                                                                                                        78
                                                                                                                                                                                                                                                                                            18
                                                                                                                                                                                                                                                                                                      57
                                                                                                                                                                                                                                                                                            GGACTGGGGTGACGGCAGGGCAGGGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGC
                                                                         CCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCA
                                                                                                                    GAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGAT
                                                                                                                                                              AGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAG
                                                                                                                                                                                   AGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCGCCCGGGGCTCCGGGAG
                                                                                                                                                                                                        AGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCAC
                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                       81.3%;
99.8%;
                                                                                                                                                                                                                                                                                                                 Score 1119; [
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                             USES
                                                                                                                                                                                                                                                                                                                            BB
                                                                                                                                                                                                                                                                                                                            4.
                                                                                                                                                                                                                                                                                                                                                                                            THEREOF
                                                                                                                                                                                                                                                                                                                 ;;
                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                  Gaps
                    896
                                         836
                                                    736
                                                                                                          656
                                                                                                                                                              436
                                                                                                                                                                         476
                                                                                                                                                                                             416
                                                                                                                                                                                                                                                                       137
         856
                                                                          676
                                                                                               616
                                                                                                                     556
                                                                                                                               596
                                                                                                                                         496
                                                                                                                                                                                    377
                                                                                                                                                                                                        317
                                                                                                                                                                                                                   356
                                                                                                                                                                                                                              257
                                                                                                                                                                                                                                         296
                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                             236
                                                                                                                                                                                                                                                                                             77
```

```
Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           β
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮹
                                    밁
                                                              Ş
                                                                                     밁
                                                                                                      οy
                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
             QΥ
                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
US-09-336-536-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
日
                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/09336536
Patent NO. 6406884
GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PATENTIN VEr. 2.0
SEQ ID NO 2
LENGTH: 728
                                                                                                                                                                           Query Match
Best Local Similarity
Matches 728; Conserv
                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: HOMO
-09-336-536-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             977
                                                               347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  857
181
                    407
                                          121
                                                                                                          287
                                                                                                                                                      227
                                                                                      61
                                                                                                                                \vdash
                                        GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                              ATGAGGCCACTCCTCGTCCTGCTGCTGCTGGGGCCTGGGGGCCGGCTCGCCCCACTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTCCTCTGCTTCTCGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCAGGTCATCCAGGAGGGCTGGCCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG 1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA 1016
GCTCCGGGAGAAAGGCGAGGGCGGGAGG-CGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                            Conservative
                                                                                                                                                                                     44.2%;
99.9%;
                                                                                                                                                                          Score 608; DB 4; 1
Pred. No. 4.9e-236;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                 USES
                                                                                                                                                                                                                                                                                                                                  THEREOF
                                                                                                                                                                                              Length 728;
                                                                                                                                                                           Indels
                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1036
                                         180
                                                               406
                                                                                     120
                                                                                                        346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        976
                    466
                                                                                                                               60
                                                                                                                                                     286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       956
                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Faul O.
APPLICANT: Humes, Jacqueline M.
FILE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 28
LENGTH: 144
TYPE: DNA
DECANISM. Artificial School
          닭
                          γ
                                                  В
                                                                       δÃ
                                                                                                                                        ; ORGANISM: Artificial; FEATURE:
; OTHER INFORMATION: N-US-09-140-804-28
                                                                                                                                                                                                                                                                                                                                                                RESULT 4
US-09-140-804-28
                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B . 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                              Query Match
Best Local S
Matches 73
                                                                                                                                                                                                                                                                                                                                          Sequence 28, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                              947
                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                             340
                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       467
                                                    72
                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGCCGCGAGGAGAGGCCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                               GGGCCACCATGGC 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGGAGGACATTACGACGCCGTCACC
         GGGCCACCATGGC
                                                                          ACTGGACGACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                    GICITIGCT 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCAAGACAGACAGCATCTCCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                              5.3%; Solitarity 100.0%; 1 Conservative 0;
                                                                                                                                                      N-terminal
                                                                                                                                                                          Sequence
          144
                                                                                              Score 73; DB; Pred. No. 1.2
                                                                                                                                                    untagged linker
                                                                                              DB 4; Le
1.2e-20;
hes 0;
                                                                                                                    Length 144
                                                                                               Indels
                                                                                               0;
                                                                                              Gaps
```

586 586 646 646 419 706 479 766 539 539 539

719

```
В
                             Š
                                                                  밁
                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                          ; FEATURE:
; OTHER INFORMATION: C-terminal Glu-Glu tag linker
US-09-140-804-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-140-804-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: N-terminal Glu-Glu tag linker US-09-140-804-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-140-804-29
                                                                                                                                              Matches
                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 31
LENCTH: 144
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 31, Application US/09140804
Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Sheppard, Paul O. APPLICANT: Humes, Jacqueline M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 144
TYPE: DNA
                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                               ITLE OF INVENTION: ADIPOCYTE SPECIFIC PROTEIN HOMOLOGS TLE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ID NO 29
                    944 CCAGTCTTTGCT 955
                                                                                                       884 AGCATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCC 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             341 GGCCACCATGGC 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   281 CTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCG 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73 CTGGACGACAAGATCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29, Application US/09140804
o. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          72;
                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                    AGCATCAAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCACCATGGC 144
CCAGTCTTTGCT 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5.2%;
ilarity 100.0%;
Conservative
                                                                                                                                            Conservative
                                                                                                                                                           5.2%;
                                                                                                                                            0;
                                                                                                                                                           Score 72;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 72;
Pred. No.
                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                           DB 4; L
3.2e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3.2e-20;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4;
                                                                                                                                          0,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 144;
                                                                                                                                                                         Length 144
                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                132
                                                                                                                                        0
```

RESULT 9 US-09-140-804-43/c

0

GENERAL INFORMATION:

APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49

Sequence 43, Application US/09140804 Patent No. 6197930

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8.
US-09-140-804-35/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                  US-09-140-804-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-140-804-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-140-804-30
                                                                                                                                                                                                                                         EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 35
LENGTH: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 30
LENGTH: 147
                                                                         Best Local Similarity Matches 51; Conserv
                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 35, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 30, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/140,804 CURRENT FILING DATE: 1998-08-26
                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 97-49
                                                                                                                                                                    OTHER INFORMATION: Oligonucleotide ZC15273
                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: C-terminal untagged linker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              905 TTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAG
                                   300 CCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATG 350
51 CCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22 TTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1998-08-26
                                                                                         100.0%;
                                                                         0
                                                                                         Score 51; pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 54;
Pred. No.
                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                         DB 4;
. 1e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5.5e-13;
                                                                         0;
                                                                                                            Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 147;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                         Indels
                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ۰,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               958
```

```
RESULT 11
US-09-140-804-44
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-140-804-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-140-804-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-140-804-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 36
                                                                                                                                                                                                                                      Sequence 44, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 43
LENGTH: 51
TYPE: DNA
ORGANISM: Artificial Sequence
                            NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 44
                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
                                                                              CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILLING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
                                                                                                                                               APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 50
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Oligonucleotide ZC15273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION:
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                         886 CATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGC 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300 CCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATG 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51;
                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09140804
                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oligonucleotide ZC15274
                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                3.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 51;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                              Score 50;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4;
. 1e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                              2.6e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 51
                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
δÃ
                                                            ; FEATURE:
; OTHER INFORMATION: Oligonucleotide ZC15267
US-09-140-804-45
                                                                                                                                                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
US-09-140-804-37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-140-804-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: Oligonucleotide ZC15724
US-09-140-804-37
                                                                                                                                                                                                                                                                                                                                                                     US-09-140-804-45
                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
                                                                                                                                      SOFTWARE: FastSEQ
SEQ ID NO 45
LENGTH: 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 37
                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                    Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
               Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 37, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/140,804 CURRENT FILING DATE: 1998-08-26 EARLIER APPLICATION NUMBER: 60/056,983 EARLIER FILING DATE: 1997-08-26 NUMBER OF SEQ ID NOS: 47
                                                                                                                                                                                                                                                                          APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Humes, Jacqueline M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Sheppard, Paul O.
                                                                                                                                                                                  NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                 FILE REFERENCE: 97-49
                                                                                               TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Oligonucleotide ZC15273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local 51;
 Local Similarity 100 les 43; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tocal
                                                                                                                                                                                                                                                                                                                                                                                                                                                  914 TTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAG 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              886 CATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGC 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAG 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                    for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3.3%; UT
100.0%; Pr
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.08;
 100.0%; Intive 0;
3.1%; Score 43; DB
100.0%; Pred. No. 1.
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 45; pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 50; DB Pred. No. 2.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Lo
                               DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4; I
2.6e-09;
                 1.6e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 50;
                               Length 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 65;
   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
```

```
CURRENT APPLICATION NUMBER: US/09/140,804

CURRENT FILING DATE: 1998-08-26

EARLIER APPLICATION NUMBER: 60/056,983

EARLIER FILING DATE: 1997-08-26

NUMBER OF SEQ ID NOS: 47

SOFTMARE: FastSEQ for Windows Version 3.0

SEQ ID NO 33

LENGTH: 62

TYPE: DNA
ORGANISM: Oligonucleotide ZCArtificial Sequence
FEATURE:
OTHER INFORMATION: Oligonucleotide ZC15268

US-09-140-804-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTMARE: FastSEQ for Windows Version 3.0
SEQ ID NO 42
LENGTH: 63
LENGTH: 63
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Oligonucleotide ZC15269
US-09-140-804-42
Search completed: June 21, 2003, 14:34:08 Job time: 82 secs
                                                                                  밁
                                                                                                                  οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-140-804-33/c
; Sequence 33, Application US/09140804
; Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-140-804-42/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                   Query Match
Best Local Similarity
Matches 38; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 42, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                              281 CTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCA 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       280 ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCA 318
                                                                             38 CTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    39 ACTGGACGACAAGATCCCCAGCCTCTGCCCGGGGCA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCT 43
                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.8%; Score 39; DB 4; Le ilarity 100.0%; Pred. No. 6.7e-07; Conservative 0; Mismatches 0;
                                                                                                                                                   2.8%; >--
100.0%; Pr
                                                                                                                                                                              Score 38;
Pred. No.
                                                                                                                                                           Mismatches
                                                                                                                                                                              DB 4; L
1.7e-06;
                                                                                                                                                           0,;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 63;
                                                                                                                                                                                              Length 62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                           Indels
                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
```

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run on:
                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
 767.8
750.6
732.8
730.2
712.6
672.2
                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length: 0
length: 2000000000
                                                                                          Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-41
1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  June 21, 2003, 08:08:59; Search time 2191 Seconds
 55.8
54.5
53.2
53.0
51.8
48.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16154066 seqs, 8097743376 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                           em_gss_other:*
em_gss_pro:*
em_gss_rod:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_esthum:*
em_estin:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em_estba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                     gb_est1:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 em_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            em_estro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            em_estpl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_estov:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    em_estmu:*
                                                                                                                                                                                                                                                  em_gss_mam:*
em_gss_mus:*
                                                                                                                                                                                                                                                                                                                 em_gss_hum:*
em_gss_inv:*
                                                                                                                                                                                                                                                                                                                                             em_estom:*
gb_gss:*
                                                                                                                                                                                                                                                                            em_gss_fun:*
                                                                                                                                                                                                                                                                                         em_gss_vrt:*
                                                                                                                                                                                                                                                                                                    em_gss_pln:*
                                                                                                                                                                                                                                                                                                                                                                                  gb_est5:*
                                                                                                                                                                                                                                                                                                                                                                                                 gb_est4:*
                                                                                                                                                                                                                                                                                                                                                                                                            gb_est3:*
                                                                                                                                                                                                                                                                                                                                                                                                                                       gb_est2:*
                                                                                                                                                                                                                                                                                                                                                                       em_estiun:*
                                                                                           Length DB
 869
1154
1093
846
801
724
                                                                                          ID
BI763193
BM547549
BM924569
BI458455
BI490880
BI771879
                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (without alignments)
10178.542 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32308132
BI763193 603049929
BM547549 AGENCOURT
BM924569 AGENCOURT
BI458455 603198037
BI490880 603031867
BI771879 603055280
                                                                                          Description
                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                         JOURNAL COMMENT
                                                                                                                                                                                                                                                                          ACCESSION
VERSION ·
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                        RESULT 1
BI763193
             FEATURES
                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                             Locus
                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               671
                                                                                                                                                                                                                                                                                                     mRNA sequence.
BI763193
                                                                                                                                                                                                                                                                                       в1763193.1
```

45	44	43	42	41	40	39	38	37	36	ω 5	34	<u>ω</u>	32	31	30	29,	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7
387.2	ш	94	95	2	9	90	9	21	23	24	26	438.4	40	48	52	53	57	63	479	98	507.6	9	517	521	532	551.4		•	77.	578	ω.	586.4	59	607.2	63			7
8	œ	8	æ	9	ë	ف	9	0	0	0	۳	Ľ	٧.	2	ρ.		Ψ	ω.		5	36.9	٥.	7	7.	8	0	0			۶,	2	۲	ω	4	5	•	8	œ
392	392	936	547	405	408	410	413	630	548	442	449	842	445	462	454	702	1349	867	778	567	844	574	517	521	532	553	870	574	879	578	941	596	596	630	1623	887	792	1045
10	10	12	12	9	9	14	9	12	12	14	13	13	14	10	ဖ	12	14	13	12	13	10	10	14	14	12	12	9	13	13	14	13	13	14	12	14	13	13	14
AW192716		72	П	AI083824	≘	BM707291	2	펓	BF906443	BM693336	BM668611	B1688017	BM673416	AW070344	AI805087	BF055285	BQ673882	BI818537	BF098614	BM021381	BE309370	AW150070	BM966954	вм966810	BF724241	BF882978	AF451167	BM021127	BI820945	вм893691	в1821899	BM544255	œ	BG706609	3	BI490062	в1770921	BM920874
оьов.	5h1	0523	BE722922 191347 MA	AI083824 qf18c09.x	AI085548 qf24c09.x	BM707291 UI-E-CR1-	a	ū			BM668611 UI-E-CK1-	BI688017 603315786	BM673416 UI-E-CR1-	AW070344 xa10d10.x	AI805087 tu33g05.x	BF055285 7j77g02.x	BQ673882 AGENCOURT	BI818537 603033057	BF098614 601750614	381	BE309370 601094718	0070	6954	6810	24241		451167 A	3	BI820945 603033989	вм893691 ij28e08.ж	BI821899 603035796	BM544255 AGENCOURT		BG706609 602672994	Z	1490062	709:	BM920874 AGENCOURT

ALIGNMENTS

LOCUS

LOCUS

BI763193

BO03049929F1 NIH_MGC_116 Homo sapiens cDNA clone IMAGE:5190222 5',

mRNA sequence.

ACCESSION

BI763193.1 GI:15754771

KEYWORDS

SOURCE

ORGANISM

Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

AUTHORS

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

COMMENT

Email: cgapbs-remail.nih.gov

Tissue Procurement: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAM11475 row: i column: 07

High quality sequence stop: 777.

1. .869

BASE CO

```
Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                       600
                                                                                                                                                                                           540
                                                                                                                                                                                                                           551
                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                               491
                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                431
                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                     371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         853;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTGGAGTCTGGGAGGAAGCAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACG
CTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTTCGGGGGGGTGGCCCAAG
                                                                                                                    GGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGAGGGGGGGACTGCGA 190
                                                                   CCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGAT
                                                                                                                                                                                                                           AAGCGCTCCGAGAGCC-GGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGT
                                                                                                                                                                                                                                                             GCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCGCC
                                                                                                                                                                                                                                                                                                                                                 GGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGAGGCGGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                  CGCGATGGCCGCGACGGCCGCGACGGCGCCCGGGGCTCCGGGAGAGAAAGGCGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCTGGGCCTGGCGGCCGCCCCCCACTGGACGACAACAAGATCCCCAGCCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGACCCCGGCGTCCCGGGCTCCCCGGTGCCATGAGGCCACTCCTCCTCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGGTTGAT
                                                                                                                                                                                         AAGCGCTCCGAGAGCCGGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCA-GGCTTGCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCGTCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGGGCAGGGGGCGCCTGGCCGGGGGAGAAGCGCGGGGGGCTGGAGCACCAACTGGAG
                                                                                                                                                                                                                                                                                                                               GGGAGGCCGGGACTGCCGGGACCTCGAGGGACCCCGGGCCGGAGGAGAGGCGGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                   CGCGATGGCCGCGACGGCGACGGCGCGCGCGCGCGCTCCGGGAGAGAAAGGCGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Organ: pooled colon, kidney, stomach; Vector: pCMV-SPORM6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 3 colons, age 26 yo male, 49 yo female, 71 yo male colon; 46 yo male kidney, and pool of stomachs, 62 yo male and 70 yo female. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 023. Note: this is a NH_MCC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="IMAGE:5190222"
/clone_11b="NIH_MGC_116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55.88;
97.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 767.8; DB 1
Pred. No. 7.9e-96;
0; Mismatches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        869;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          by C
                                                                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                                                                   430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                130
                                                                                   727
                                                                                                                     659
                                                                                                                                                       667
                                                                                                                                                                                           599
                                                                                                                                                                                                                         609
                                                                                                                                                                                                                                                             539
                                                                                                                                                                                                                                                                                             550
                                                                                                                                                                                                                                                                                                                                                                490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of
of
                                                                                                                                                                                                                                                                                                                               479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70
```

δã 밁 õ 밁 δ В δÃ 밁 οy 밁 ρy В δ 밁 δõ 밁 δÃ B δÃ В 29 밁 Ş 밁 Ş

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
BM547549
LOCUS
밁
                            Š
                                                                     밁
                                                                                                      ρy
                                                                                                                                               밁
                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ρy
                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                        Query Match
Best Local S
Matches 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                    160
                                                                                                            100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   848
121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                       61
                                                                                                                                                                                     40
                                                                                                                                                -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1154 k
AGENCOURT_6507694 NIH_MGC_125
5', mRNA sequence.
BM547549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: //image.llnl row: o column: 19 High quality sequence stop: 591.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Invitrogen
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium
DNA Sequencing by: Agencourt Hioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (bases 1 to 1154)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM547549.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (1999)
                                                                                                                                                                                                                                           Similarity
                                                                                                                                                CGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGGGGGCCTGGCCGGGGAGA
                 GCCATCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCGGGCGTCCGGGGTCCCGGTGC 219
                                                                                          CGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGGGGGGCGCCTGGCCGGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGGTGGGTG-TGGGTGACTACATTGGCATCTA
GCCATCGGGGAGCCGGGAGGGGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGTTGGTGTGGGTGACTACGTTGGCATCTA
                                                                       GCCAGCTCGCTCTCGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAAGTGTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGTGAAGAATGGCGAATCCATTGGCTC-TTCTTCCAGTTTTACGGGGGGGTGGCC--AA
                                                                                                                                                                                                                                                                                                                     178
                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                   þ
                                                                                                                                                                                                                                                                                                             /note-"organ: ovary (pool of 3); Vector: pcMV-SPORT6;
Site_1: ECORV (destroyed); Site_2: NotI; RNA source pool of three ovaries, from females ranging in age from 38 to 49 yo. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 2.1 kb, insert size range 1-3.5 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 036."

a 382 c 401 g 193 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5724522"
/clone=lib="NIH_MGC_125"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                         54.5%;
93.3%;
                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                        Score 750.6; DB 13;
Pred. No. 1.5e-93;
0; Mismatches 54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene
                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear ES
                                                                                                                                                                                                                                                         Length 1154;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST
                                                                                                                                                                                                                        ίų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IMAGE:5724522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            847
180
                                                                                                                                                60
                                                                                                                                                                                       99
```

```
RESULT 3
BM924569
LOCUS
                                                                                                                                                      REFERENCE .
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                   SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ν
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220
                                                                                                                                                                                                                                                                                                                                          1093 b
AGENCOURT_6767665 NIH_MGC_116
5', mRNA sequence.
BM924569
                 Contact: Robert Strausberg, Ph.D.
Email: cgapbs r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium
CDNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 1093)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collections of the collections of the
                                                                                                                                                      Unpublished (1999)
                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                         EST.
                                                                                                                                                                                                                                                                                       human
                                                                                                                                                                                                                                                                                                                          BM924569.1
   Cound through the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTATGCCAGCGGTCCGAACGAACAGACCTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTCTACCGGGCCAGCCTGCAGTTTGATCCGGGGAAGAATGGCGAATCC-TTGCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGGCGTCCATGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGAGCAGTTACGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGACCCCGGGCCGAGGAGGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCGGGGCTCCGGGAGAAAAGGCGAGGCCGGGAGGCCGGGACTGCCGGGACCTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGCCACCATGGCAGGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCGACGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCC
                                                                                                                                                                                                                                                                                                                            GI:19374948
   I.M.A.G.E. Consortium/LINL
                                                                                                                                                                                                                                                                                                                                                                               bp
6 Homo
                                                                                                                                                                                                                                                                                                                                                                               mRNA
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              876
                                                                                                                                                                                                                                                                                                                                                                               linear Es
                                                                                                                                                                        Collection (MGC)
                                                                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                               EST 12-MAR-2002
ne IMAGE:5760942
                     be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
ORIGIN
                                                                  δÃ
                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                               밁
                                                                                                                                                                                       밁
                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                             δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                     751
                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                 691
                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          391
 991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         High
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           http://image.llnl.gov
Plate: LLAM12808 row:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGACGGCGCGCCCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGG
                                                                                                                                                                                                           CATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGTGGGTGACTACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCGAGGGGACCCCGGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCG
CCTAG-AAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGA
                                                      CTGGCACAGCTCCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACT
                                                                                                             TGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGA
                                                                                                                                                                                                                                                                                   CCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCAT
                                                                                                                                                                                                                                                                                                                                                               CCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGT
                                                                                                                                                                                       TTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                      TTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTCGAGGGGACCCCGGGGCCGGGGGGGGGGGGGGGCCCACCGGGGCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGACGGCGCGCCCGGGGCTCCGGGAGAGAAAGGCGAAGGCCGGGAGGCCGGGACTGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Organ: pooled colon, kidney, stomach; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 3 colons, age 26 yo male, 49 yo female, 71 yo male colon; 46 yo male kidney, and pool of 2 stomachs, 62 yo male and 70 yo female. Library is oligo-dr primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 023. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone="IMAGE:5760942"
/clone_lib="NIH_MGC_116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       53.2%;
96.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 732.8; DB 1
Pred. No. 4.1e-91;
0; Mismatches 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
 1049
                                                                                                                 600
                                         660
                                                                            990
                                                                                                                                                                                       540
                                                                                                                                                                                                                            870
                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                     810
                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                       690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                             750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
```

Query Match Best Local Similarity 96.1%; Pred. No. 1.1e-90; Matches 803; Conservative 0; Mismatches 24; Indels 9; Gaps Qy 7 TTCTCTTGGAGTCTGGGAGGAGGAGGAGCGGGAGCGGAGCGAACCAGGACTGGGGT	//db_xref="taxon:9606" //clone_fib="MAGE:5278184" //clone_fib="MAGE:5278184" //clone_fib="Mypothalamus" //tlssue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_type="hypothalamus" //tlsue_	its, M.D., Ph.D. I'J. Brownstein (NHGRI), EN) A.G.E. Consortium (LLNL) cs, Inc. cstribution information ce ortium/LLNL at:	4 5 5 84 10N 60319887F1 NIH_MGC_96 Homo mRNA sequence. B1458455 ON B1458455.1 GI:15249111 S EST. 1SM Homo sapiens EUKaryota; Metazoa; Chordat: Mammalia; Eutheria; Primate: CE 1 (bases 1 to 846) NIH MGC http://mgc.nci.nih. National Institutes of Heal National Institutes of Heal	Db 661 CCTAGAAAGGAGGGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGGCCCCCTGGA Qy 1050 ATATTGTGAAAGAACTAACGAGGTAGAGCACTCTCCGTCCTGCTGCAGGAAGGA
Primates; Catarrhini nci.nih.gov/. of Health, Mammalian ausberg, Ph.D. 1.nih.gov Life Technologies, I ration: Life Technole ed by: The I.M.A.G.E. Groyte Genomics, Inc : MGC clone distribut .M.A.G.E. Consortium/ ov	Qy 786 AGCCAGCCTCGCTCTCGGGGGGGCCAY Db 793CAGGCAAGCTCGTCTCGGGGGGGCCAY RESULT 5	Shiraki Qy 607 CGTGCTGGTGAACGACGTCCGCCGTCTACCGCCAGGCCAGCTCCACCTTCGACCG Shiraki Qy 607 CGTGCTGGTGAACGAGCAGTTACGACGGCAAGTTCACCT-GCCAGG [Oy 307 Db 319 Qy 367 Db 379 Qy 427 Db 439 Qy 489 Qy 547	139 187 199 247 259

```
ρ
                                                                                                                             γŞ
                                                                                                                                                               밁
                                                                                                                                                                                        Ş
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                  뮹
                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      QΨ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ър
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
              Š
                                             밁
                                                                  Q
                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                1003
                                                                                                                                     1063
                                                                                                       247
                                                                                                                                                                  307
                                                                                                                                                                                                                            367
                                                                                                                                                                                                                                                          943
                                                                                                                                                                                                                                                                                        427
                                                                                                                                                                                                                                                                                                                      883
                                                                                                                                                                                                                                                                                                                                                    487
                                                                                                                                                                                                                                                                                                                                                                                823
                                                                                                                                                                                                                                                                                                                                                                                                              547
                                                                                                                                                                                                                                                                                                                                                                                                                                            763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    773;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    High
High
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plate: LLAM11430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                 GTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACCGGGCCAGCCTGCAGTTTGATCT-GGTGAAGAATGGCGAATCCATTGCCTCTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTCCGCGATCCGCCTTCAGC-GCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGA
                                                           TGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGG
                                                                                                                       CTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCCAGGAATGGGAACAGTGGC
                                                                                                                                                                                                                          CCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGG
                                                                                                                                                                                                                                          CCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGG
                                                                                                                                                                                                                                                                                      CAGCATCAAGACAGCACCTTCTCCCGGATTTCTGGTGTACTCCGGACTGGCACAGGCTC
                                                                                                                                                                                                                                                                                                                    CAGCATCAAGACAGACACCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTC
                                                                                                                                                                                                                                                                                                                                                  GGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGACTACATTGGCATCTATGC
                                                                                                                                                                                                                                                                                                                                                                                GGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGC
                                                                                                                                                                                                                                                                                                                                                                                                            CCGGCAAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGGC-AAGTTCACCTGCCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCACCTTTG-CCTTCGACCGCGTGCTGGTGAACGAGCCAGGGACATTACGACGCCGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAG-CAGGGGACATTACGACGCCGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTTCGCGATCCGCCTTCAGCGGCCAAGCGCTCCGAGAGCCGGGTTCCTCCGCCGTCTGA
              AGTGTGCTGCTGGCAAGTGTAAGTCCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGG
                                                                                                      CTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGC
                                                                                                                                                                GTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGA
TGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  quality sequence start: 8 quality sequence stop: 738.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note-*Organ: pooled brain, lung, testis; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; 1 male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 021. Note: this is a NIH MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="NIH_MGC_115"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5172880"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51.8%;
98.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                row: f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 712.6; DB 1
Pred. No. 2.7e-88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 13; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.
                                                                                                                                  1122
                                                                                                                                                                                            1062
                                                                          1182
                                                                                                                                                                                                                                                          1002
                                                                                                                                                                  248
                                                                                                                                                                                                                                                                                                                    942
                                                                                                                                                                                                                                                                                                                                                  428
                                                                                                                                                                                                                                                                                                                                                                                882
                                                                                                                                                                                                                                                                                                                                                                                                                                            822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                703
                                            128
                                                                                                       188
                                                                                                                                                                                                                            308
                                                                                                                                                                                                                                                                                        368
                                                                                                                                                                                                                                                                                                                                                                                                              488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       727
               1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
 믕
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
BI771879
LOCUS
   δÃ
                                             밁
                                                                            QΥ
                                                                                                                    밁
                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                         Local Sinhes 674;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1303 GCCGGCC 1309
              820.
                                                                                 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127
                                                                                                                                                      700 CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT
                                                 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67
                                                                                                                      N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 724)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA sequence.
BI771879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                в1771879.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   603055280F1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 found through the I.M.A.G.E. Consortium/LLNL http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plate: LLAM11513 row: o column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                numan
                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLN DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information
GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTA
                                               GGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCATAACCCCCTCCTGCTCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTGCTCTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGTGCTGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGG
                                                                                                                                                                                                                                                                              176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            quality sequence stop: 672.
                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                              ρ
                                                                                                                                                                                                                                                                                                          /note-Torgan: pooled lung and spleen; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 24 week female lung, 16 week female spleen, and 20-22 week male spleens. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 026. Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:9606"
/clone="IMAGE:5204971"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="NIH_MGC_122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:15763457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NIH_MGC_122 Homo
                                                                                                                                                                                                                                                                         itrogen). Research Genetics tracking is a NIH_MGC Library. 184 c 211 g 152 t 1 others
                                                                                                                                                                                                        48.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                       0,
                                                                                                                                                                                     Score 672.2; DB 13; Pred. No. 9.2e-83; 0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens cDNA clone IMAGE:5204971 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST 25-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (LLNL)
                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     can
                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ĕ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1302
                                               121
                                                                                   819
                                                                                                                    61
                                                                                                                                                      759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                       0
```

GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTA

```
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                  RESULT 7
BM920874
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                 ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40
40
40
40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                        AUTHORS
TITLE
JOURNAL
                                                                source
                                                           Email: cgapbs-remail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bloscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM12785 row: n column: 14
High quality sequence stop: 415.
Location/Qualifiers
rce
1...1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1120
                                                                                                                                                                                                                                                                                                                                                                                                                          1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        542
                                                                                                                                                                                                                                                                                                                                                                                                      662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                 1045 bp

AGENCOURT_6706053 NIH_MGC_115 Homo

5', mRNA sequence.

BM920874
                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; V
Mammalia; Eutheria; Primates; Catarrhini;
1 (bases 1 to 1045)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                               EST
                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                         BM920874.1 GI:19371253
                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGTGCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCNACCCCCTCCTGCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAAAAAAAAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                          AAAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGGTGCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAG
         /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5752141"
/clone=1ib="NIH_MGC_115"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                          1377
                                                                                                                                                                                                                                                                                                                                                                                                      679
pooled brain,
                                                                                                                                                                                                                                                 Craniata; Vertebrata; Catarrhini; Hominidae,
                                                                                                                                                                                                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                                       sapiens
lung,
                                                                                                                                                                                                                    Gene
                                                                                                                                                                                                                                                    Hominidae;
                                                                                                                                                                                                                                                                                                                                       cDNA clone
                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                   Collection (MGC)
                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                  EST 12-MAR-2002
                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                         IMAGE: 5752141
                                                                                                                                ě
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1179
                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         939
         RESULT 8
BI770921
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE CO
                                                                                 QΥ
                                                                                                         밁
                                                                                                                           Qy
                                                                                                                                                  망
                                                                                                                                                                       δõ
                                                                                                                                                                                             밁
                                                                                                                                                                                                              QY
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                     ₽
                                                                                                                                                                                                                                                                                                                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNT
                                                                                                                                                                                                                                                                                                                                                                                                               277
                                                                                    888
                                                                                                          697
                                                                                                                               831
                                                                                                                                                    637
                                                                                                                                                                        771
                                                                                                                                                                                               577
                                                                                                                                                                                                                                        517
                                                                                                                                                                                                                                                              651
                                                                                                                                                                                                                                                                                   457
                                                                                                                                                                                                                                                                                                       591
                                                                                                                                                                                                                                                                                                                            397
                                                                                                                                                                                                                                                                                                                                                  531
                                                                                                                                                                                                                                                                                                                                                                      337
                                                                                                                                                                                                                                                                                                                                                                                          471
                                                                                                                                                                                                                                                                                                                                                                                                                                   411
                                                                                                                                                                                                                                                                                                                                                                                                                                                          217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171
                                                                757
                                                                                                                                                                                                                   711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37
 BI770921
603059737F1
                                                                TCCAGACAGACAGGACCTTCTCCCGGATTTCTGGTGAACTCCGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
```

```
al Similarity
733; Conser
                                                                                                                                                                                                                        CCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCACTCCTCGTCCTGCTGCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGA
TCAAGACAGACAGCACCTTCT-CCGGATTTCTGGTGTACTCCGACTGG
                                                                               AGGACCAAGTGTGGGTGCAGGTG-GGTGTGGGTGACTACA-TTGGCATCTATGCCA-GCA 887
                                                                                                                                                                TCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTC 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCACTCCTCGTCCTGCTCCTGGGCCTGGCCGGCGCTCGCCCCCACTGGACGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTGGTCCACAGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGA
                                                                                                                                           TCGGTGGGTGGCCCAAACCAGCCTCGATCTCGGGGGGGGCCATGGTGATGCTGGAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCGAGGAGGGGGGGCCCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATG
                                                           ATGACCAAGTGTGNGTGCATGTGNGGTGTGCGTGACTACATTTGTGATCTATGGCATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pcmv-sporm6; Site_1: NotI; Site_2: EcoRV (destroyed); RN source anonymous pool of 6 male brains, age range 23-27; male lung, age 27; and 1 male testis, age 69. Library i oligo-dT primed and directionally cloned (EcoRV site 1s destroyed upon cloning). Average insert size 1.8 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by Gruber (Invitrogen). Research Genetics tracking code 021. Note: this is a NIH_MGC Library."

343 c 341 g 183 t 2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48.7%;
95.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 671; DB Pred. No. 1.1e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 14;
.1e-82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                           576
                                                                                                                                                                                                                            636
                                                                                                                                                                                                                                                                   770
                                                                                                                                                                                                                                                                                                                                                                                           516
                                                                                                                                                                                                                                                                                                                                                                                                                                   650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96
                                                                                                                                           696
                                                                                                                                                                                                                                                                                                                                                  710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     216
```

NIH_MGC_122

792 Homo

bp mr sapiens

mRNA linear EST 25-SEP-2001 s cDNA clone IMAGE:5209065 5',

```
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                           Q.
                                              В
                                                                  δÃ
                                                                                                        ρ
8
                                                                                                                                                                   뫄
               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                       Loca1 758;
                                                                                                                                      802
                 922
                                               301
                                                                            862
                                                                                                          241
                                                                                                                                                                      181
                                                                                                                                                                                                   742
                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                               682
                                                                                                                                                                                                                                                                                                                        622
                                                                                                                                                                                                                                                                                                                                                                                   562
                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                      _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: LLAM11524 row: j column: 10
High quality sequence stop: 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 792)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BI770921.1
                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                   GAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCTGCTGGTGAACGA
                                                                                                                        CTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGG
                                                                                                                                                                                                                                                                                        GCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTA
                                                                                                                                                                                                                                                                                                        GCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTA 681
                 GTACTCCGACTGCCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCAT
                                                            TGACTACATTGGCATCTATGCCAGCATCAAGACAGACAGĆACCTTCTCCGGGATTTCTGGT
                                                                                                                                                                     CTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGG
                                              TGACTACATTGGCATCTATGCCAGCATCAAGACAGCACCTTCTCCGGATTTCTGGT
                                                                                                          142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence
                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=100gan: pooled lung and spleen; Vector: pCMY-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 24 week female lung, 16 week female spleen, and 20-22 week male spleens. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 026. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            נם
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5209065"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="NIH_MGC_122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:15762499
                                                                                                                                                                                                                                                                                                                                                                                                                            48.0%;
                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 3.5e-81;
                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 792;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                               8,
                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Б
                                                                                                                                                                                                                                                                                          120
                                                                          921
                                                                                                                                      861
                                                                                                                                                                   240
                                                                                                                                                                                                   801
                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                            741
                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
BI490062
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BI490062
603031867F1 NIH_MGC_115
                                                                                                                                                                                                                                          CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM11430 row: f column: 17
                                                                                                                                                                                                                                                                                                                                                   Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                         1 (bases 1 to 887)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BI490062.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BI490062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             გ=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AC 1335
                                                                                                                                                                                                                              quality sequence stop:
                                                                                                                     /clone="IMAGE:5172880"
/clone_lib="NIH_MGC_115"
/lab_host="DH10B"
                                                                                                                                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:15329290
                                                                                                                                                                                                   .887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   887
                                                                                                                                                                                                                               815.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hominidae;
```

```
1159 TGGATTTCTGCCCAAGACCAG-AGGAGTGTGCTGCTGCCAGTGCAAGTG-TAAGTCCCCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 GTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCCACTGCAAAGTGAGCTCAT 420
                                                                                                                                                                                                                                                                                                                                                                      T-GCTCTGGTCCAGGAGCCCACG-GTGGGGTGCTCTT-CCTGGTCCTCTGCTTCTCTG
TGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCCAGCATGGGCCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTTGGC
                                                GATCCTCCCCACCCCTCCTGCTCCTGGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAA
                                                                                                                                                                                                                                                                                                         TGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGG-CAGCATGGGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGC-TGGC
                                                                                           TAGCTCTGGTCCAGGAGCCCACGAGTGGAGTGCTCTCTTACCTGGTCCTCTGCTTCTCTG
                                                                                                                                                                                     TGGATTTCTGCCCAAGACCAGCAGCAGTGTGCTGCTGCTGGCAAGTGTTAAGTCCCCCAGT
    780
                                                                                                                                       1273
                                                                                                                                                                                     660
                                                                                                                                                                                                                                 1216
                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                            1158
                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                      1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1040
                                                                                           720
```

Homo sapiens cDNA clone linear ar EST 28-AUG-2001 IMAGE:5172880 5',

Gene Collection (MGC)

Euteleostomi;

Inc. (LLNL) can

þe

/note-*Organ: pooled brain, lung, testis; Vector: pCMV-SpORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C

Collection (MGC)

Euteleostomi;

EST 12-MAR-2002

886

IMAGE: 5766864

```
BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNT
                                               953
                                                                           714
                                                                                                         895
                                                                                                                                       654
                                                                                                                                                                      835
                                                                                                                                                                                                    595
                                                                                                                                                                                                                                  775
                                                                                                                                                                                                                                                                 535
                                                                                                                                                                                                                                                                                              715
                                                                                                                                                                                                                                                                                                                            475
                                                                                                                                                                                                                                                                                                                                                          655
                                                                                                                                                                                                                                                                                                                                                                                        415
                                                                                                                                                                                                                                                                                                                                                                                                                    595
                                                                                                                                                                                                                                                                                                                                                                                                                                                  355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                    GCTTAGTGCCCACTGCAAAGT--GAGCTCATGCTCTC-ACTCCTAGAAGGAGGGTGTGAG
                                                                                                                                                                                                                  GGGGTGGCCCAAGCCCAGCCTCGCTCTCGGGGGGGGCCCATGGTGAGGCTGGAGCCTGAGGA
                                                                                                                                                                                                                                                                                 CACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGACTGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGGAGAAGCGCGCGGGGCTGGA
                                                                                           AGACAGCACCTTCTCCGGATTTC-TGGTGTACTCCGGACT-GGCACAGCTCCCCAGTCTTT
                                                                                                                                                                                                                                                                GCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCGCCTTCACCCCAAGCGCTCCGAGAGCCCGGTGCCCTCTGACGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTTAGTGCCCACTGCAAAGTTGAGCTTCATGCTCTCAATTCCTAGAAGGAGGGTGTGAG
                                                                             AGACAGCACCTTCTCCGGATTTCTTGGTGTACTCCGACTGGGCACAGCTCCCAGTCTTTT
                                                                                                                                                                                                  GGGGTGGCCCAAGCCAG-CTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGA
                                                                                                                                                                                                                                                                                                                            CACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAG
                                                                                                                                                                                                                                                                                                                                                                                      GCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCGGGACCTCGAGGGGACCCCGGGCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTCCTCGTCCTGCTCCTGGGCCTGGCCGGCCCGCCCCCACTGGACGACAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGACTGGGGTGACGGCAGGTCATGGGGGGCCCTGGCCGGGGGAGAAGCGCGGGGGGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gruber (Invitrogen). Research Genetics tracking 021. Note: this is a NIH_MGC Library." 277 c 307 g 157 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46.68;
84.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -CCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . No. 1.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; DB 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      code
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                 833
                                                                           773
                                                                                                                                    713
                                                                                                                                                                  894
                                                                                                                                                                                                  653
                                                                                                                                                                                                                                834
                                                                                                                                                                                                                                                                594
                                                                                                                                                                                                                                                                                           774
                                                                                                                                                                                                                                                                                                                         534
                                                                                                                                                                                                                                                                                                                                                       714
                                                                                                                                                                                                                                                                                                                                                                                      474
                                                                                                                                                                                                                                                                                                                                                                                                                   654
                                                                                                                                                                                                                                                                                                                                                                                                                                                 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
BM926477
LOCUS
Ş
                            밁
                                                    Q
                                                                                        밁
                                                                                                                   δÃ
                                                                                                                                                   망
                                                                                                                                                                            Š
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                            Best Loc
Matches
                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                            Local
                                                          251
                                                                                          121
                                                                                                                        191
                              181
                                                                                                                                                                                  131
                                                                                                                                                                                                                                                                              631;
                                                                                                                                                    61
                                                                                                                                                                                                                                              71
                                                                                                                                                                                                                  H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.

Email: cgapbs r@mail.nih.gov

Tissue Procurement: Life Technologies, Inc.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.E. Consortium

CDNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGENCOURT_6644538 NIH_MGC_122
5', mRNA sequence.
BM926477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          found through the I.M.A.G.E. Consortium/LLNL http://image.llnl.gov
plate: LLM412824 row: d column: 01
High quality sequence stop: 558.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 1623)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM926477.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human
                                                                                                                                                                                                                                                                                         Similarity
                          GGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGAGCCGGGAGGGGGGACTGCGA 190
                                                                                                                                                                                                                GCAGGGCAGGGGGCTGGCCGGGGGGAGAAGCGCGGGGGCTGGAAGCACCACCAACTGGAG
                                                                                                                      GAGGACCCCGGCGTCCCGGGCCCCGGTGCCAGCGCTATGAGGCCACTCCTCGTCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTGACAACCAGG-TCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATG
CCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGGAGCCAGGGCTTGCCGGGC
                                                                                                                                                    GGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGACTGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGACAAACAGGTTCATCCAGGAAGGCGTGGCCCCCTGGAATATTGCTGATG
                                                                                                                                                                                                                                                                                                                                                       263
                                                                                                                                                                                                                                                                           45.8%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                       þ
                                                                                                                                                                                                                                                                                                                                                   /note-"Organ: pooled lung and spleen; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 24 week female lung, 16 week female spleen, and 20-22 week male spleens. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range.1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 026. Note: this is a NHI_MGC Library."

a 505 c 550 g 299 t 6 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5766864"
/clone_lib="NIH_MGC_122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:19376856
                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                           Score 631; DB Pred. No. 2.4 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalian
                                                                                                                                                                                                                                                                            . 2.4e-77;
ches 0;
                                                                                                                                                                                                                                                                                                            DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA linear Es
sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gene
                                                                                                                                                                                                                                                                                                         Length 1623;
                                                                                                                                                                                                                                                                            Indels
```

0,

Gaps

130 60

180

250

240

120

B & B

Ş 밁 δÃ 밁 δÃ 밁 δÃ 밁 Qy 밁 δÃ

밁 S S

δ 밁 Š 밁 Š 밁 ΩV ₽ QΥ В ρ 日 Ş 밁 δ

밁

Gaps

0;

126

78

138

```
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
BG706609
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δλ · Β
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BG706609
BG706609.1
EST.
                                                                                                                                                                                                                                                                                        found through the I.M.A.G.E. Consortium/LLNL http://image.llnl.gov plate: LLAM10678 row: 1 column: 23 High quality sequence stop: 630.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BG706609
602672994F1 NIH_MGC_96
                                                                                                                                                                                                                                                                                                                                                                                          Tissue Procurement: Miklos Palkovits, M.D., Ph.D. CDNA Library Preparation: Michael J. Brownstein Toshiyuki and Piero Carninci (RIKEN) CDNA Library Arrayed by: The I.M.A.G.E. Consorti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
1 (bases 1 to 630)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                          DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGCGCTCCGAAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTTGCACCGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAGAGAAAGGCCGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGTCTACTACTTCGCCGTCCATGCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGGTCTACTACTTCGCCGTCCATGCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTTCCGCGATCCGCCTTCAGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGAGGCGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCGATGGCCGCGACGGCGCGCGCGCGCGCGCGCGGGAGAGAAAGGCGAGGGC
                                                                                                                                                                                                                                                                        quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cgapbs-r@mail.nih.gov
                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:4795558"
/clone_lib="NIH_MGC_96"
/tissue_type="hypothalamus"
/lab_host="DH10B"
/note-"Organ: brain; Vector: pBluescript (modified pBluescript KS+); Site_1: BamHI; Site_2: SalI-XbDI (qtcgag pBluescript KS+); Site_1: BamHI; Site_2: SalI-XbDI (qtcgag ); Oligo-dT primed using primer 5: "TTTTTTTTTTTTTTVN-3', size-selected for average insert size 2.3 kb and normalized to ROT 5. This is a primary library enriched for full-length clones and constructed using the Cap-trapper method (Carninci, in preparation). Library constructed by M. Brownstein (NIMH/NHGRI, National Institutes of Health). Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                        .630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:13982121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nRNA linear
cDNA clone IM
                                                                                                                                                                                                                                                                                                                                                                                            Consortium (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IMAGE: 4795558
                                                                                                                                                                                                                                                                                                                                                                                                                             (NHGRI),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                             Shiraki
                                                                                                                                                                                                                                                                                                                                                              þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ū
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                      RESULT 12
BM893587/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                     VERSION
KEYWORDS
                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Вр
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 609;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                             619
                                                                                                                                                                                                                                                                                                                                                                                                                           607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487
                                                                                                                                                                                                                                                                                                                                                                                                                                                              559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19
                 1 (bases 1 to 596)
Melton,D., Brown,J., Kenty,G., Permutt,A., Lee,C., Kaestner,K.,
Melton,D., Brown,J., Kenty,G., Permutt,A., Gradwohl,G., Clifton,S.,
Lemishka,I., Scearce,M., Brestelli,J., Gradwohl,G., Clifton,S.,
Hillier,L., Marra,M., Pape,D., Wylie,T., Martin,J., Blistain,A.,
Schmitt,A., Theising,B., Ritter,E., Ronko,I., Bennett,J., Carder
,M., Gibbons,M., McCann,R., Cole,R., Tsagareishvili,R., Williams
,M., Gibbons,M., McCann,R., Cole,R., Tsagareishvili,R., Williams
,Jackson,Y. and Bowers,Y.
                                                                                                                            Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                   BM893587 596 bp mRNA linear EST ij26g10.71 Melton Normalized Human.Islet 4 N4-HIS 1 Hom cDNA clone IMAGE:6136122 3' similar to TR:09UFX4 09UFX4 HYPOTHETICAL 22.8 KD PROTEIN; mRNA sequence.
                                                                                                                                                                                                                     BM893587.1
                                                                                                                                                                                       numan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                           CGTGCTGGTGAA 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGAGAAGGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCGGGGGCTCCGGGGAGAGAAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCCATGGCAGCCGGGGCTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGAGAGGACCCCGGCGTCCGGGCTCCCGGGTGCCAGCGCTATGAGGCCACTCCTCGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGCCCATCGGGGAGCCGGGAGGGGGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGGT
                                                                                                                                                                                                                                                                                                                                                                                            CGTGCTGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCCGGGGCTCCGGGAGAAAAGGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ø
Pancreas
                                                                                                                                                                                                                         GI:19349055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
   Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          607.2;
No. 7.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /.1e-74;
3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           630;
                                                                                                                                                                                                                                                                                        EST 29-APR-2002
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
```

486 438 426 306

258 246 198 186

378 366 318

546 498

558

618 909 Qγ Ъ Qy DЬ

밁

```
δ
                                                               당
                                                                                                                        В
                                                                                                                                                          δÃ
                                                                                                                                                                                             밁
                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                      δĀ
                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
   236
                                                                                                                                 356
                                                                                                                                                                                               416
                                                                                                                                                                                                                             932
                                                                                                                                                                                                                                                             476
                                                                                                                                                                                                                                                                                                                                                           812
                                                                                                                                                                                                                                                                                                                                                                                      992
                                                                                                                                                                                                                                                                                                                           536
                                                                                                                                                                                                                                                                                                                                                                                                                                                           596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Douglas Melton DNA sequencing by
Washington University Genome Sequencing Center For information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (2000)
Contact: Douglas Melton, Klaus H. Kaestner, & Hiroshi Inoue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop: 441.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seq primer: -40UP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         obtaining a clone please contact: Juliana Brown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (brown@fas.harvard
GAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCC
                                                                                                                                                                                                                TGGCACAGCTCCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCACTC
                                                                                                                                                                                                                                                                            GGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGAC
                               GGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGCAGTGGCTGGATTTCTGCCC 1171
                                                                                  ATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCCAGGAATG
                                                                                                                               CTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAAT
                                                                                                                                                                                                                                                                                                                                            ATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATG
                                                                                                                                                               CTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAAT 1051
                                                                                                                                                                                               TGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTC
                                                                                                                                                                                                                                                             GGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                           ATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGTGGGTGACTACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          617-495-8557
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="Organ: Pancreas; Vector: pSPORT1; Site_1: Not 1; Site_2: Sal 1; Starting library constructed using SuperScript Plasmid Library kit (Life Technologies). cDNA made by oligo-dT priming. Size-selected by column fractionation; average insert size 1.08 kb. Library was amplified once on solid support and plasmid DNA from library was prepared. The library DNA was normalized by method #4 from Bonaldo, Lennon, and Soares 1996 Genome Research 6:791-806; 0.5 microgram single-stranded library plasmid DNA was mixed with 5 micrograms PCR product representing library inserts and hybridized to an Ecot of 20. Single-stranded (unhybridized) plasmids were isolated by hydroxyapatite chromatography and used to make this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue_type="Islets of Langerhans"
/dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:6136122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        library."
183 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /sex="Both"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="Melton Normalized Human Islet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                43.3%; Err
100.0%; Prr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 596; DB 14;
Pred. No. 2.5e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        169
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ave,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N4-HIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
177
                                                                                               1111
                                                                                                                                                                                                                                                                                                                                                                                         537
                                                                                                                                                                                                                                                                                                                                                                                                                         811
                                                                                                                                                                                                                           991
                                                                                                                                                                                                                                                                                         931
                                                                                                                                                                                                                                                                                                                           477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                 237
                                                                                                                               297
                                                                                                                                                                                                                                                           417
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
BM544255
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
Š
                               밁
                                                          δÃ
                                                                                             닭
                                                                                                                          Š
                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                            BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                               Matches
                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       176
                                                                 849
                                                                                                                                                                 587;
                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56
```

```
789 CAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAGTGTGGGTGC 848
909 CCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGC 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGENCOURT_6490655 NIH_MGC_125
5', mRNA sequence.
BM544255
                                                                                                                                                                  1 CAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAGTGTGGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutherla; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 596)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 High quality sequence stop: 595.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: LLAM12357 row: m column: 08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tissue Procurement: Invitrogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM544255.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortion DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can
                                                                                   GCCCACGGTGGGGTGCTCTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTC 1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGA 1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCTCCTGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTCCTGGGGCCCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTC 1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCACGGTGGGTGCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGACCAGAGGAGTGTGCTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGA 117
                                                      138
                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                     ρ
                                                                                                                                                                                                                                                                                                                                                                                                               /note="organ: ovary (pool of 3); Vector: pCMV-SPORT6; Site_1: EcoRV (destroyed); Site_2: NotI; RNA source pool of three ovaries, from females ranging in age from 38 to 49 yo. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 2.1 kb, insert size range 1.3.5 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 036."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:9606"
/clone="IMAGE:5587759"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="NIH_MGC_125"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                       42.6%;
99.7%;
                                                                                                                                                                                                                                                                                                       Score 586.4; DB Pred. No. 5e-71;
                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bp mRNA
5 Homo sapiens
                                                                                                                                                                                                                                                                                                                                    DB 13;
                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear EST 20-FEB-2002 CDNA clone IMAGE:5587759
                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               be
                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57
```

constructed tracking cod

ted by

```
JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
BI821899
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ο<sub>γ</sub>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM11440 row: p column: 24
High quality sequence stop: 779.
Location/Qualifiers
                                                                                                                                                                                                                                                                                             Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                    NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 941)
                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                          EST
                                                                                                                                                                                                                                                                                                                                                                                                                    BI821899
BI821899.1
                                                                                                                                                                                                                                                                                                                                                                                                                                            mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        BI821899
603035796F1 NIH_MGC_115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTCCTGCTGCTGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGAGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGTGAGCTCATGCTCCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGCCAAGTGTAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGCCTGAAGTGTAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGAGGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGGTAGAGCACTCTC
                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence
/note-"Organ: pooled brain, lung, testis; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); source anonymous pool of 6 male brains, age range 23-2 male lung, age 27; and 1 male testis, age 69. Library oligo-dT primed and directionally cloned (EcoRV site in destroyed upon cloning). Average insert size 1.8 kb, insert size range 1-3 kb. Library is normalized and
                                                                                                 /clone="IMAGE:5176967"
/clone_lib="NIH_MGC_115"
                                                                                       /lab_host="DH10B"
                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        941
Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                      bp mRNA
sapiens cDNA
                                                                                                                                                                                                                                                                                                                     Gene Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1377
                                                                                                                                                                                                                                                                                                                                                                      Euteleostomi;
                          Library i
V site is
                                                                                                                                                                                                                       рe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                       İs
                                      RESULT 15
BM893691/c
LOCUS
                                                                                                 밁
                                                                                                                                               밁
                                                                                                                                                                  δÃ
                                                                                                                                                                                               밁
                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                              Дb
                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                            δā
                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 758
                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                             616
                                                                                                                                                                                                                                                                                                                                                                                             556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         316
                                                                                                                                                                                               795
                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310
BM893691 578 bp mRNA linear EST 2 ij28e08.x1 Melton Normalized Human Islet 4 N4-HIS 1 Homo cDNA clone IMAGE:6136046 3' similar to TR:09UFX4 Q9UFX4 HYPOTHETICAL 22.8 KD PROTEIN ;, mRNA sequence.
```

```
Similarity 94.3
58; Conservative
                                                                                                                                                                                        GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAG-CCTGAGGACCAAG
                                                                                                                                                                                                                                                                       GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTCGGGGGGGTG
                                                           AGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAG
                                                                                                                         -AGGTGCCTGGGGTCTACTACTTCGCCGTCCA-TGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGCGGGGCCCACCGGG--CCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGCGATGGCCGCGACGCCGCGACGGCGCGCCGG-GGCTCCGGGAGAGAAAGGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCCTGGGCCTGGCCGGCCGGCCCCCCCCTGGACGACAACAAGATCCCCCAGCCTCTG
               TGCCCACTGCAAAGTGAGCTCATG
                                                                                                                                                                                                                                                          GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTGCAG-TTTTCGGGCAGTG
                                                                                                                                                                                                                                                                                                                        GAGGTGCCTGGGGTCTACTTCGCCGTCCATTGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                       ACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                      ACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGACCCCCGGGCCGCGAGGAGAGGCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGAGGCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGCGATGGCCGCGACGGCGCGCGCGCGCGCGGTGGCTCCGGGAGAAAAGGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCCATGGGCCTTGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCA-GGGCTTGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          enriched for full-length clones and was Gruber (Invitrogen). Research Genetics 021. Note: this is a NIH MCC Library." a 320 c 329 g 162 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42.4%;
94.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 583.2; DB Pred. No. 1e-70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                            912
                                                                                                                                                           898
                                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                                        675
                                                                                                                                                                                                                                                                                                                                                                                       615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 195
                                                                                                                                                                                           794
                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                      662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 309
                                                                                                                                                                                                                                                        734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14;
```

Qy 89 Db 45	Qy 830 Db 518	Qy 770 Db 578	Query Match Best Local Matches 57	BASE COUNT	FEATURES Source	TITLE JOURNAL COMMENT	REFERENCE	ACCESSION VERSION KEYWORDS SOURCE ORGANISM
90 AAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTC 949	30 GAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGCATC 889	0 TTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCCATGGTGAGGCTGGAGCCT 829	ch 42.0%; Score 578; DB 14; Length 578; 1 Similarity 100.0%; Pred. No. 7.1e-70; 578; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	/tissue_type="Islets of Langerhans" /dev_stage="Adult" /lab_host="DH10B" /note="Organ: Pancreas; Vector: pSPORT1; Site_1: Not 1; Site_2: Sal 1; Starting library constructed using SuperScript Plasmid Library kit (Life Technologies). cDNA made by oligo-dT priming. Size-selected by column fractionation; average insert size 1.08 kb. Library was amplified once on solid support and plasmid DNA from library was prepared. The library DNA was normalized by method #4 from Bonaldo, Lennon, and Soares 1996 Genome Research 6:791-806; 0.5 microgram single-stranded library plasmid DNA was mixed with 5 micrograms PCR product representing library inserts and hybridized to an Ecot of 20. Single-stranded (unhybridized to make this library." 130 a 181 c 163 g 104 t	MA 02138 Tel: 617-495-1812 Fax: 617-495-8557 Email: dmelton@biohp.harvard.edu Library was constructed by Dr. Douglas Melton DNA sequencing by: Washington University Genome Sequencing Center For information on obtaining a clone please contact: Juliana Brown (brownefes.harvard.edu) Seq primer: -40UP from Gibco High quality sequence stop: 408. 1578 //ocation/Qualifiers //ocyganism="Homo sapiens" //db_xref="taxon:9606" //clone="IMAGE:6136046" //clone="IMAGE:6136046" //sex="Both"		Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 578) Melton, D., Brown, J., Kenty, G., Permutt, A., Lee, C., Kaestner, K., Leenter, C., Kaestner, K., Leenter, C., Kaestner, K., Leenter, C., Leenter,	GI:19349159

	ο-	38	뭥
	CTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTC 1347	1310	VΩ
39	TCTTCCTGGTCCTCTCTCTGGATCCTCCCACCCCTCCTGCTCCTGGGGCCGGCC	98	日
1309	TCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCGGCC	1250	δĀ
99	TGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTC	158	망
1249	TGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTC	1190	Ş
159	GATCAGGTCTGGCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGGAGTGTGC	218	망
1189	GATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGC	1130	QY
219	GTGGGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGC	278	дb
1129	GGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCCAGGAATGGGAACAGTGGCTGTCTGC	1070	Qγ
279	GCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGA	338	рЬ
1069	GCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGA	1010	ŶΩ
339	TTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAG 339	398	В
1009	•••	950	Qy

Search completed: June 21, 2003, 11:25:26 Job time : 2203 secs

```
Command line parameters:

-MODEL-frame+_n2p.model -DEV-xlh
-Q-cgn2_1/USPTO_spool_VS09944944/runat_13062003_145845_22751/app_query.fasta_1.1543
-Q-cgn2_1/USPTO_spool_VS09944944/runat_13062003_145845_22751/app_query.fasta_1.1543
-DB-Sw1ssProt_40 -QFMT-fastan -SUFFIX=rsp -MINMATCH-0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS-bits -START-1 -END-1 - MARRIX-blosum62 -TRANS-human40.cd1 -LIST-45
-DCCALIGN-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15 -MODE-LOCAL
-OUTFMT-pto -NORM-ext -HEAPSIZE-500 -MINLEN=0 -MAXLEN=2000000000
-USER-US09944944_@CGN_11_15_@runat_13062003_145845_22751 -NCPU-6 -ICPU-3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK-100:-LONGLOG
-DEV_TIMEOUT-120 -MARN_TIMEOUT-30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT-0.5 -DELOP-6 -DELEXT-7
                                                                                                                                                                                                                                                                                                                        Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic - protein search, using frame_plus_n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    on:
                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                  417
417
415.5
412
407
                                                                                                                                                                                   433.5
426.5
                                                                                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-41
2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              June 21, 2003, 14:34:16; Search time 19.5 Seconds (without alignments) 5857.734 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              112892 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BLOSUM62
                                                                                                                                                                                                                                                                                                                                        Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 52.2
17.8
17.8
17.8
17.1
16.8
117.1
16.8
16.4
16.4
16.4
16.2
14.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SwissProt_40:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                       Length
243
6740
6744
680
247
7444
7444
7443
7444
2419
2419
2419
251
                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41476328 residues
                           CA1A_CHICK
CA1A_MOUSE
APM1_MOUSE
CA18_RABIT
APM1_HUMAN
CA28_HUMAN
CA77_HUMAN
CA18_MOUSE
CA18_HUMAN
C10C_MOUSE
COLE_LEPMA
CQT7_HUMAN
C10C_HUMAN
C10C_HUMAN
                                                                                                                                                                                                                                                    CA1A_HUMAN
CA1A_BOVIN
                                                                                                                                                                                                                                                                                                                          ij
                                                                                                                                                                                                                                                                                     CQT5_HUMAN
                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0.5
0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                225784
                                                                                                                                                                                                       Q9bxj0 hom.
Q9bxj0 homo sapie.
Q03692 homo sapie.
P23206 bos taurus
P33205 gallus gall
THE musculu
                                                                           Q05306 mus musculu
Q60994 mus musculu
P14282 oryctolagus
Q15848 homo sapien
P25067 homo sapien
Q9bxj2 homo sapien
Q00780 mus musculu
P27658 homo sapien
Q02105 mus musculu
                                             Q9bxj5
                                                                                                                                                                                                                                                                                                                       Description
                                                                  P98085
            homo sapien
homo sapien
                                               homo sapien
                                                             lepomis mac
```

ALIGNMENTS

DR DR DR DR	8888888	CC CC R R R R R R	RN RL		CQ
EMBL; AF329841; AAK17965.1; EMBL; AL110261; CAB53702.1; Genew; HGNC:14344; C1C/NF5. InterPro; IPR001073; C1q. InterPro; IPR000087; Collagen. Pfam; PF00386; C1q; 1. Pfam; PF01391; Collagen; 1.	This SWISS-PROT entry is copyright. It is between the Swiss Institute of Bioinformatics Institute. The European Bioinformatics Institute. Use by non-profit institutions as long modified and this statement is not remove entities requires a license agreement (Statement and an amail to license@isb-sib.ch).			OSBXJO; OSPFX4; OSBXJO; OSPFX4; 15-JUN-2002 (Rel. 41, Created) 15-JUN-2002 (Rel. 41, Last sequence u 15-JUN-2002 (Rel. 41, Last annotation Complement-clq tumor necrosis factor- ClQTNF5 OR CTRP5. Homo sapiens (Human). Eukaryota; Metazoa; Chordata; Cranlat Mammalia; Eutheria; Primates; Catarrh NCBL_TaxID-9606;	SULT 1 T5_HUMAN T5_HUMAN TOTS HIMAN TANDARD. DRT. 243

rattus

```
8 B
                                                                                                                                                                                                                                                                                       Best I
Query
DB:
β
δ
                   밁
                           δ
                                        밁
                                                                      δ
                                                                                P 63 B
                                                                                                              A d b
                                                                                                                                            45
45
45
                                                                                                                                                                                       В
                                                                                                                                                                                                S
G
                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similari
Query Match:
                                                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                SQ
                                                                                                                                                                                                                                                                            US-09-944-944-41 (1-1377) x
                                                                                                                                                                                                                                                                                                                               DOMAIN
DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                         PROSITE; F
Collagen;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                     CHAIN
                    221
                                         201
                                                              181
                                                                                   161
                                                                                                        141
                                                                                                                  647
                                                                                                                            121
                                                                                                                                     587
                                                                                                                                                                                                    407
                                                                                                                                                                                                                         347
                                                                        767
                                                                                             707
                                                                                                                                                 101
                                                                                                                                                           527
                                                                                                                                                                               467
                                                                                                                                                                                                                                             287
                                                                                                                                                                                                                                                                  227
                                                                                                                                                                     81
                                                                                                                                                                                         61
                                                                                                                                                                                                               41
                                                                                                                                                                                                                                   21
                                                                                                                                                                                                                                                                                                 Similarity:
                                                                                                                                                                                                                                                                                                                                                                         SM00110; C
                                        ATCAAGACAGACAGCATCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                          GGGCCGCGAGGAGAGGCGGGACCCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                             ValPheAla
                                                                   GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTCCGGGGACCTCGAGGGGACCCC
                                                             GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                        AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                    {\tt IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro}
                                                                                                                                                                                                                                                                                                                                                             Signal.
                                                                                                                                                                                                                                                                                                                              30
97
243
                                                                                                                                                                                                                                                                                                                                                    16
                                                                                                                                                                                                                                                                                                                                $
                                                                                                                                                                                                                                                                                                                                                                         C1Q;
                                                                                                                                                                                                                                                                                                                                                                              COMPLEMNTC10
                                                                                                                                                                                                                                                                                                                                                                    C10;
                                                                                                                                                                                                                                                                                           1.78e-53
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                95
243
25298
243
                                                                                                                                                                                                                                                                                                                                                    15
243
                                                                                                                                                                                                                                                                            CQT5_HUMAN
                                                                                                                                                                                                                                                                                                                                                                    FALSE_NEG
                                                                                                                                                                                                                                                                                                                                ¥.
                                                                                                                                                                                                                                                                                                                             POTENTIAL.
COMPLEMENT-CIQ TUMOR NECROSIS FACTOR-
RELATED PROTEIN 5.
COLLAGEN-LIKE.
C10.
; 7CCDA65CDA7EB784 CRC64;
                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                      Gaps:
                                                                                                                                                                                                                                                                           (1-243)
                                                                                                                                                                                                                                                                                      243
243
0
0
                              946
                                                   886
                                                                                   180
                                                                                                      160
                                                                                                                                     646
                                                                                                                                                                              526
                                                             200
                                                                                            766
                                                                                                                 706
                                                                                                                           140
                                                                                                                                                120
                                                                                                                                                          586
                                                                                                                                                                    100
                                                                                                                                                                                         80
                                                                                                                                                                                                   466
                                                                                                                                                                                                             60
                                                                                                                                                                                                                        406
                                                                                                                                                                                                                                   40
                                                                                                                                                                                                                                           346
                                                                                                                                                                                                                                                       20
```

```
CRESULT
IDALA_HU
IDAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE=92109659; PubMed=1764025;
Thomas J.T., Cresswell C.J., Rash B., N
Solomon E., Grant M.E., Boot-Handford F
"The human collagen X gene. Complete pr
chromosomal localization.";
Biochem. J. 280:617-623(1991).
          VARIANTS SMCD ASP-598 AND PRO-614.
MEDLINE-94136476; PubMed-8304336;
Wallis G.A., Rash B., Sweetman W.A.
Grant M.E., Boot-Handford R.P.;
'Amino acid substitution' ''
                                                                                                                                      Kuivaniemi H., Tromp G., Prockop D.J.;
"Mutations in fibriliar collagens (types I, II, III
associated collagen (type IX), and network-forming
cause a spectrum of diseases of bone, cartilage, an
Hum. Mutat. 9:300-315(1997).
                                                                                                                                                                                                                                                                                                           SEQUENCE OF 547-655 FROM N.A. MEDLINE-92077285; PubMed-1743401; Reichenberger E., Aigner T., von "In situ hybridization studies on in fetal human cartilage."; Dev. Biol. 148:562-572(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
Beier F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1995 (Rel. 32, Created)
01-NOV-1997 (Rel. 35, Last sequence up
16-OCT-2001 (Rel. 40, Last annotation
Collegen alpha 1(X) chain precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Apte S., Mattel M.-G., Olsen B.R.;
"Cloning of human alpha 1(X) collagen
COLIOA1 gene to the q21-q22 region of
FEBS Lett. 282:393-396(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Apte S.S., Seldin M.F., Hayashi M., Olsen B.R., "Cloning of the human and mouse type X collagen the mouse type X collagen gene to chromosome 10 Eur. J. Biochem. 206:217-224(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEBS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 561-666 FROM N.A. MEDLINE-91243838; PubMed-2037056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 52-680 FROM N.A. MEDLINE-92267014; PubMed-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=93012005;
Reichenberger E.,
Bertling W.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CA1A_HUMAN
Q03692;
                                                                                                                                                                                                                                                   MEDLINE-97255959;
                                                                                                                                                                                                                                                                      REVIEW ON VARIANTS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COL10A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lett.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E FROM N.A., Lammi M.B., d (JUN-1996) t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organization and full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (JAN-2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           311:305-310(1992)
substitutions of trminal domain of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                 PubMed=9101290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PubMed-1397333;
Beier F., Luvalle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , von
າ the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ç
                                                           Sweetman W.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C.J., Rash B.,
Boot-Handford
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1587271;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                der
f conserved
the alpha 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            er Mark K.;
EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Catarrhini; Hominidae.
                                                                                                                                                                                                                                                                                                                                                                             der
                                                                                                                                                                                                                                                                                                                                                       the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P.,
                                                             Thomas
                                                                                                                                                                                                                                                                                                                                                                         Mark K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                primary
d residues i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nicolai
| R.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                680
                                                                                                                                                                                                                                                                                                                                                       Mark K., Stoeb expression of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA and localization human chromosome 6.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Olsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence
                                                             J.T.,
                                                                                                                                                                  II, III, and XI),
forming collagen (
lage, and blood ve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            databases
                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genes
                                                             Super
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jones
type
                                                                                                                                                                                                                                                                                                                                                       H., Bertling W.
type X collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             von
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mapping
                                                                                                                                                                  n (type X) vessels.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of.
                                                             Evans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of.
```

its

```
"Novel missense mutation resulting in the substitution of ty
cysteine at codon 597 of the type x collagen gene associated
Schmid metaphyseal chondrodysplasia.";
J. Hum. Genet. 43:259-261(1998).
-I- FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC
CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE
                                                                                                                                                                                                                                                                                                                                                                                                         "Mutation of the type X collagen gene 'COL10A1' causes spondylometaphyseal dysplasia."; Am. J. Hum. Genet. 63:1659-1662(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VARIANTS SMCD GLU-18 AND ARG-18.
MEDLINE=97220591; PubMed=9667753;
Ikegawa S., Nakamura K., Nagano A., Haga N., Nakamura "Mutations in the N-terminal globular domain of the tygene (COL10A1) in patients with schmid metaphyseal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wallis G.A., Rash B., Sykes B., Bonaventure J., Maroteaux P., Zabel B., Wynne-Davies R., Grant M.E., Boot-Handford R.P.; "Mutations within the gene encodine alpha 1 (X) chain of type collagen (COLIOAL) cause metaphyseal chondrodyspiasia type Schmid not several other forms of metaphyseal chondrodyspiasia."; J. Med. Genet. 33:450-457(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McIntosh I., Abbott M.H., Warman M.L., Olsen B.R. "Additional mutations of type X collagen confirm Schmid metaphyseal chondrodysplasia locus."; hum. Mol. Genet. 3:303-307(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               occur in two unrelated families with metaphyseal chondrodysplasia
type Schmid.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        collagen type X account for most of the Schmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       metaphyseal chondrodysplasia.";
J. Biol. Chem. 270:4558-4562(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIINE-95181449; PubMed-7876225; Chan D., Cole W.G., Rogers J.G., Bateman J.F.; "Type X collagen multimer assembly in vitro is prevented by a Gly618 to Val mutation in the alpha 1(X) NC1 domain resulting in Schmid metaphyseal chandrodysplasia.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         type
                                                                                                                                                                                                                                                                                                                                       Sawai H.,
                                                                                                                                                                                                                                                                                                                                                    MEDLINE=99069781; PubMed=9852679;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chondrodysplasia.";
Hum. Mutat. 9:131-135(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=96375754; PubMed=8782043;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-95331767; PubMed-7607655;
Bonaventure J., Chaminade F., Mar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nakamura Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=99057503;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VARIANTS SMD GLU-595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VARIANT SMCD PRO-600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Mutations in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANTS SMCD ARG-545; GLU-595; HIS-597; LYS-617; ARG-644 AND GLY-648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT SMCD VAL-618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [kegawa S., Nishimura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=94272470; PubMed=8004099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT SMCD ARG-591.
                               SUBUNIT: HOMOTRIMER.

PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.

DISEASE: DEFECTS IN COLIDAL ARE THE CAUSE OF SCHMID TYPE METAPHYSEAL CHONDRODYSPLASIA (SMCD), A DOMINANTLY INHERITED DISORDER OF THE OSSEOUS SKELETON. THE CAROINAL FEATURES OF THE PHENOTYPE ARE MILD SHORT STATURE, COAR VARA AND A WADDLING GAIT. RADIOGRAPHY USUALLY SHOWS SCLEROSIS OF THE RIBS, FLARING OF THE RADIOGRAPHY USUALLY SHOWS SCLEROSIS OF THE RIBS, FLARING OF THE RESPECTALLY OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J. Hum. Genet.
                                                                                                                                                                                                      MINERALIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genet. 96:58-64(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Schmid
                                                                                                                                                                                                                                                                                                                                 Ida A., Nakata Y., Koyama K.;
DEFECTS IN COL10A1 ARE THE CAUSE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         three subdomains of the carboxy-terminal region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed=9837818;
nura G., Nagai T.,
                                                                                                                                                                                                      ZONES OF HYALINE CARTILAGE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54:169-178(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Maroteaux P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hasegawa T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B.R., Francomano C
firm COL10A1 as the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        metaphyseal
SPONDYLOMETAPHYSEAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ohashi H.,
                                                                                                                                                                                                                                                                                                associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ¥.;
                                                                                                                                                                                                                                                                                                               of tyrosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     x collager
                                                                                                                                                                                                                                                                                                  with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           റ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    but.
                                                                                                                                                                                                                                                                                                                 γď
                                                    밁
                                                                                     Š
                                                                                                                                                                                                                                                                                                                   DB:
                                                                                                                                                                                                                                         Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam;
Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR;
PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                  303 LeuProGlyLeuLysGlyGluArgGlyProAlaGlyLeuProGlyGlyProGlyAlaLys 322
                 79
                                                                                           19
```

```
US-09-944-944-41 (1-1377) x CAIA_HUMAN (1-680)
                                                         Percent Similarity:
Best Local Similarity:
                                               Query Match:
                                                                                                               Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; X60382; CAA49333.1; -.
EMBL; X60382; CAA46236.1; -.
EMBL; X98568; CAA67178.1; -.
EMBL; A1121963; CAA87590.1; -.
EMBL; A68531; AAC60615.1; -.
EMBL; X88879; CAA41686.1; -.
EMBL; X88879; CAA41686.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DYSPLASIA (SMD): SMD COMPRISES A HETEROGENEOUS GROUP OF HERITABLE SKELETAL DYSPLASIAS CHARACTERIZED BY MODIFICATIONS OF THE VERTEBRAL BODIES OF THE SPINE AND METAPHYSES OF THE TUBULAR BONES -!- SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS. -!- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                           VARIANT
                                                                                                                                                                                                           VARIANI
                                                                                                                                                                                                                                        VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR00007; COM:
SMART; SM00110; C1Q;
                                                                                                                                                                                                                                                                        VARIANT
                                                                                                                                                                                                                                                                                                                                                                                       Cartilage;
                                                                                                                                                                                                                                                                                                                                                                                                         Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR000087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   $15826; $15826.
$30086; $30086.
$43901; $43901.
$18249; $18249.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the Eleuropean Bioinformatics Institute. There are no resti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    $21856; $21856.
$26396; $26396.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PF00386; Clq; 1.
PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X72579; CAA51170.1;
X72580; CAA51170.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HGNC:2185;
                                                                                                                                                                                                                                                                                                                                                                                                                         PS01113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPR001073; C1q. IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                       Collagen;
                                                                                                                                                                             591
                                                                                                                                                                                                           545
                                                                                                                                                                                                                                                                                                                            19
19
57
                                                                                                                                                                                                                                                                 ;; COm...; Signal; f
18 18 680
56 519
519 519
5680
5680
18
                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPLEMNTC1Q.
                                                                                                                                                                                                                                                                                                                                                                                                                       ClQ;
                                          2.24e-14
458.00
42.78%
32.47%
18.03%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COL10A1
                                                                                                                                                                             591
                                                                                                                                                                                                                                                                                                                                                                                                      Connective tissue; Repeat; Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                        G10.
                                                                                                                                                          /FTId=VAR_001840
C -> R (IN SMCD)
/FTId=VAR_001841
                                                                                                                                                                                                                                                                                                                                                                                       Disease mutation;
                                                                                                                                                                                                                                                                                                                       NONHELICAL REGION (NC: TRIPLE-HELICAL REGION
                                                                                                                                                                                                                                        G -> E (IN SMCD)
/FTId=VAR_001838
G -> R (IN SMCD)
                                                                                                                                                                                                                                                                                                         NONHELICAL
                                                                                                                                                                                                                                                                                                                                                         COLLAGEN ALPHA 1(X) CHAIN
                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
                                                                                                                                                                                                                       /FTId=VAR_001839
                                             Matches:
Conservative:
Mismatches:
Indels:
                              Gaps:
                                                                                                               Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                         REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Usage
                                                                                                                                                                                                                                                                                                                                                                                     Polymorphism.
                                                                                                                                                                                                                                                                                                                                      (NC2).
                                                                                                                                                                                                                                                                                                         (NC1)
                              126
40
123
123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a collaboration -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 commercia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             on
```

GGG

-GCCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA-----

120

CTGGGAGGAGGGAACCGGAGCGGAGCGAACCAGGACTGGGGTGACGGCAGGGCA

```
901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           323
                                                                                                                                                                                                                TGATCTGGTGAAGAATGGCGAATCCATTGCC---TCTTTCTTCCAGTTTTTTCGGGGGGTG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oProGlyProArgGlyH1sSerGlyGluProGlyLeuProGlyProProGlyProProGl
rSerPheSerGlyPheLeuVal
                                                                                 CACCTTCTCCGGATTTCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                        GCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCCTGAGGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \verb|nIleProGlyIleTyrTyrPheSerTyrHisValHisValLysGlyThrHisValTrpVa|\\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pLysIleLeuTyrAsnArgGlnGlnHisTyrAspProArgThrGlyIlePheThrCysGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           eThrValIleLeuSerLysAlaTyr-----ProAlaIleGlyThrProIleProPheAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  uSerGlyThrProLeuValSerAlaAsnGlnGlyValThrGlyMetProValSerAlaPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCCGGGCCGCGAGGAGAGGCG---------GGACCCGCGGGGGCCCACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGGAGGCCGGACTGCCG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          y {\tt ProProGlyGlnAlaValMetProGluGlyPheIleLysAlaGlyGlnArgProSerLe}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTGCCGGGGAGTGCTCGGTGCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     o {\tt ProGlyProAlaGlyIleAlaThrLysGlyLeuAsnGlyProThrGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProProGlyProGlyProProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            eGlyProProGlyIleProGlyPheProGlySerLysGlyAspProGlySerProGlyPr 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerProGlySer------AspGlyLysProGlyTyrProGlyLysProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MetGlyProGlnGlyProLysGlyIleProGlySerHisGlyLeuProGlyProLysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGluGlnGlyProAlaGlyLeuProGlyLysProGlyLeuThrGlyProProGlyAsn
                                                                                                                                                                   lTrpLeuGlnLeuProAsnAlaGluSerAsnGlyLeuTyrSerSerGluTyrValHisSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lGlyLeuTyrLysAsnGlyThrProValMetTyrThrTyrAspGluTyrThrLysGlyTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGCGATGGCCGCGACGGCGCGCGCGCGCGCGCGCGCGGGAGAGAAAGGCGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuAspGlyProLysGlyAsnProGlyLeuProGlyProLysGlyAsp-ProGlyVal--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCCTGGGCCTGGCCGGCTCGCCCCCCCCCACTGGACGACAACAAGATCCCCAGCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluThrGlyProAlaGlyProAlaGlyTyrProGlyAlaLysGlyGluArgGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -GlyGlyProProGlyLeuProGlyProValGlyProAlaGlyAlaLysGlyMetProGl
                                                                                                                                                                                                                                                                                                                                               SerGlySerAlaIleIleAspLeuThrGluAsnAspGlnVa
    677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -CCGCGATCCGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACCTCGAGGGGA 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---CGTCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        543
                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20:
```

Ş

B

5 B

8 B 8

õ

日

Š

B

Š

밁

```
RESULT 3
CA1A_BOVIN
                                                                                                                                                                                      Query Match:
DB:
                                             Percent Similarity:
Best Local Similarity:
                                                                                                                 Alignment Scores: Pred. No.:
                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Cartilage;

MEDLINE-91113131; PubMed-1703407;

Thomas J.T., Kwan A.P.L., Grant M.E., Boot-Handford Thomas J.T., Kwan A.P.L., Grant M.E., Boot-Handford "Isolation of cDNAs encoding the complete sequence c "Isolation Fuidence for the condensed nature of mammar Fuidence for the condensed nature of mammar of the condensed nature of the
                                                                                                                                                                                                       MOD_RES
MOD_RES
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COLLAGEN GENES.";
Biochem. J. 273:141-148(1991).
-I- EUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE MINERALIZATION ZONES OF HYALINE CARTILAGE.
-I- SUBUNIT: HOMOTRIMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS01113; C1Q; Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR00007; COMPLEMNTC1
ProDom; PD000007; Collagen;
SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00386; Clq; 1. Pfam; PF01391; Collagen; 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; X53556; CAA37624.1; -. PIR; S13301; S13301.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <del>-</del> <del>-</del> <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea Bovidae; Bos. NCBI_TaxID-9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last sequence
15-JUL-1999 (Rel. 38, Last annotatio
Collagen alpha 1(X) chain precursor.
                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                              CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR001073;
InterPro; IPR000087;
                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                             Cartilage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P23206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CA1A_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS. SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS. SIMILARITY: CONTAINS 1 C10 DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
    3.4e-14
454.00
44.93%
33.42%
17.87%
                                                                                                                                                                                                         18
674
519
674
674
674
674
197
460
463
                                                                                                                                                                                      65546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                           Connective tissue; R
Signal; Glycoprotein.
                                                                                                                                                                                      Œ,
                                                                                                                                                                                    BY SIMILARITY.
HYDROXYLATION (BY SIMILARI'
HYDROXYLATION (BY SIMILARI'
N-LINKED (GLCNAC. . .) (PO'
W; CD4CA73A03E004CA CRC64;
                                                                                                                                                                                                                                                                            NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION.
NONHELICAL REGION (NC1).
C1Q.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                              COLLAGEN ALPHA 1(X)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ndford R.P.;
uence of bovine '
f mammalian type
                                                                                                                                                                                                                                 SIMILARITY)
                                                                                                                                                                                                                                                      SIMILARITY).
    674
122
42
42
116
85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hydroxylation,
                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      type
e x
```

```
ρ
                                                                                                                                                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δĀ
                                                                                                                   Ωy
                                                                                                                                                                     В
                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                             Вb
                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ρ
                                     δ
                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-944-944-41 (1-1377) x CAIA_BOVIN (1-674)
    647
                                             850
                                                                                     629
                                                                                                                                                                       609
                                                                                                                                                                                                               733
                                                                                                                                                                                                                                                        589
                                                                                                                                                                                                                                                                                                  673
                                                                                                                                                                                                                                                                                                                                           569
                                                                                                                                                                                                                                                                                                                                                                                  613
                                                                                                                                                                                                                                                                                                                                                                                                                            551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    372
                                                                                                                              790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyAlaLysGlyGluGlnGlyProAlaGlyHisProGlyGluAlaGly-----LeuPro
  nLeuProAsnAlaGlySerAsnGlyLeuTyrSerProGluTyrValHisSerSerPheSe
                       yIleTyrTyrPheSerTyrHisIleHisValLysGlyThrHisAlaTrpValGlyLeuTy
                                                                                                                                                                                                                                                                              GGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGT
|:::|||||||||||
                                                                                                                                                                                                                                                                                                                                       eLeuSerLysAlaTyr-----ProAlaIleGlyThrProIleProPheAspLysIleLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oProGlyProProGlyProArgGlyAsnAlaGlyGluProGlyLeuProGlyProProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rProGlyProProGlyProAlaGlyIleAlaValLysGlyLeuAsnGlyProThrGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :|||
gGlyProIleGlyProFroGlyIleProGlyPheProGlySerLysGlyAspValGlyTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProGlyIleAlaGlySer-ProGlyLeuProGlyProValGlyProAlaGlyAlaLySGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCC----ACTCCTCGTCCTGCTGCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyProSerGlyAsnMetGly-----ProGlnGlyProLysGlyIleProGlyAsnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCCTGAGGACCAAGTGTGGGTGCA
                                                                                                                                                                   rLysAsnGlyThrProValMetTyrThrTyrAspGluTyrIleLysGlyTyrLeuAspGl
                                                                                                                                                                                                                                                                                                                                                                                GGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gProPheValSerAlaAsnGlnGlyValThrGlyMetProValSerAlaPheThrValIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           yProProGlyProProGlyGlnValAlaLeuProGluAspPheValLysAlaGlyGlnAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCGAGGGACCCCGGGCCGCGAGGAGGCG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCGAGGCGGGAGGCCGGGACTGCCG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                yValProGlyHisAsnGlyGluAlaGlyProArgGlyValProGlyIleProGlyThrAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyGluProGlyLeuAsnGlyProLysGlyAsnProGlyLeuProGlyProLysGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGCCTGGCCGGCCTCGCCCCACTGGACGACAACAAGATCCCCCAGCCT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AsnProGlyAlaLysGlyGluArgGlySerSerGlyLeuAspGlyLysProGlyTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGGAGGCCATCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGCGAACCAGGACTGGGGT - - - - - - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -CTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----GlyLeuProGlyProLysGlyGluMetGlyProValGlyProAlaGly
                                                                                -SerGlySerAlaValIleAspLeuThrGluAsnAspGlnValTrpLeuGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -GACGGCAGGGCAGGGGCGCCTGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -CCGCGATCCGCCTTCAGCGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -GGACCCGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -cgg
                                                                                647
                                                                                                                                                                     629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         511
    667
                                         909
                                                                                                                          849
                                                                                                                                                                                                                                                      609
                                                                                                                                                                                                                                                                                                                                                                                672
                                                                                                                                                                                                                                                                                                                                                                                                                       569
                                                                                                                                                                                                                                                                                                                                                                                                                                                               612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          337
CALLACTORY

CANACT

CALLACT

PO8125

DT 01-NOV

DT 15-JUL

DT CALLACT

CALLACT

CALLACT

CACCOLLAG

GO COLLAG

GO COLLAG

GO COLLAG

COC Archosy

OC Archosy

CA Archosy

CA Archosy

OC A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                     -!- SUBUNIT: HOMOTRIMER.
-!- PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.
-!- SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS.
-!- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CA1A_CHICK
P08125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gallus gallus (Chicken).
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Galliformes; Phasianidae; Phasianinae;
                                                        Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen; 8.
Pfam; PR010007; COMPLEMNTC
SMART; SM00110; ClQ; 1.
                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-89380199; PubMed=2476437; Yamaguchi N., Benya P.D., van der Rest M., Ninomiya Y.; Yamaguchi N., Benya P.D., van der Rest M., Ninomiya Y.; "The cloning and sequencing of alpha 1(VIII) collagen cDNAs demonstrate that type VIII collagen is a short chain collagen and contains triple-helical and carboxyl-terminal non-triple-helical domains stinilar to those of type X collagen."; J. Biol. Chem. 264:16022-16029(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Luvalle P., Ninomiya Y., Rosenblum N.D., Olsen B.R.;
"The type X collagen gene. Intron sequences split the 5'-untranslated region and separate the coding regions for the non-collagenous aminoterminal and triple-helical domains.";
J. Biol. Chem. 263:18378-18385(1988).
                   PROSITE; PS01113; C1Q; 1.
Extracellular matrix; Connective
                                                                                                                                                                                                          EMBL; M13496; AAA48736.1; ALT_SEQ EMBL; J04194; AAA48634.1; -.
                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "The developmentally regulated type X open reading frame without introns.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Olsen B.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 48-674 FROM N.A., AND SEQUENCE OF 103-117 MEDLINE-86168227; PubMed-3082876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Collagen alpha 1(X)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1991
15-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ninomiya Y., Gordon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-AUG-1988
                                                                                                                                               InterPro;
                                                                                                                                                                 InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REVISIONS TO C-TERMINUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=89054019; PubMed=2461368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 1-75 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE MINERALIZATION ZONES OF HYALINE CARTILAGE.
                                                                                                                                                                                         A31896; A31896.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                910 CGGATTTCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rGlyPheLeuVal
                                                                                                                                             IPR001073; C1q
IPR000087; Col
  Collagen; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Rel. 08, Created)
(Rel. 20, Last sequence up
(Rel. 38, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         261:5041-5050(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                  COMPLEMNTC1Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chain
                                                                                                                                               Collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            van
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          der Rest M.,
                     tissue;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        schmid T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A
                     Repeat;
```

Hydroxylation

collaboration

gene contains a long

Linsenmayer T.,

AND

453-466

```
Best Local Si
Query Match:
DB:
δ
                                         Ş
                                                                밁
                                                                                        õ
                                                                                                                                 Ş
                                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                         밁
                                                                                                                 밁
                                                                                                                                                            밁
                                                                                                                                                                                 Qy
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                           Ъ
                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-944-944-41 (1-1377) x CALA_CHICK (1-674)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFFITTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                 524
                                                                                                                                                             504
                                                                                                                                                                                   496
                                                                                                                                                                                                         484
                                                                                                                                                                                                                              458
                                                                                                                                                                                                                                                    464
                                                                                                                                                                                                                                                                          436
                                                                                                                                                                                                                                                                                                444
                                                                                                                                                                                                                                                                                                                                           425
                                                                                                                                                                                                                                                                                                                                                                 316
                                                                                                                                                                                                                                                                                                                                                                                      415
                                                                                                                                                                                                                                                                                                                                                                                                            256
                                                                                                                                                                                                                                                                                                                                                                                                                                  395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       365
                                                                                                                                                                                                                                                                                                                                                                                                                                                     202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85
                                              CTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAA
                                                                    GlyProValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCTGGCCGGGGAGAAGCGCGGGGGGTGGAGCACCACCAACTGGAGGGTCCGGAGTAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGluAsnGlyLeuProGlyProLysGlyAspMetGlyProValGlyProAlaGly---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGC
                         olleLysPheAspLysIleLeuTyrAsnArgGlnGlnHisTyrAspProArgThrGlyIl
                                                                                          GCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACC
                                                                                                               {\tt gGluLeuSerGlyMetSerPheMetLysAlaGlyAlaAsnGlnAlaLeuThrGlyMetPr}
                                                                                                                                                           yProProGlyProProGlyGlnSerThrIleProGluGlyTyrValLysGlyGluSerAr 524
                                                                                                                                                                                 GCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCT----
                                                                                                                                                                                                       oLeuGlyProProGlyProLysGlyAsnSerGlyGluProGlyLeuProGlyProProGl
                                                                                                                                                                                                                                                                                              gGlyProIleGlyProProGlyMetProGlyAlaProGlyAlaLySGlyGluAlaGlyAl 464
                                                                                                                                                                                                                                                                                                                    TGGCCGCGACGGCGACGGCGCGCGCGCGCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAG
                                                                                                                                                                                                                                                                                                                                                              GCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGGCCAGGGCTTGCCGGGCCGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                              HisProGlyLeuProGlyGlnLysGlyAspThrGlyHisAlaGlyHisProGlyLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---PheProGlyAlaLysGlyGluArgGlyLeuPro-------
                                                                                                                                                                                                                                                                                                                                        Val-ProGlyIleAsnGlyGluProGlyProArgGlyProSerGlyIleProGlyValAr
                                                                                                                                                                                                                                                                                                                                                                                                         GGGCCTGGCGGCCGGCCCCCCCCCCGGCGACGACAACAAGATCCCCAGCCTCTGCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCCGG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
19
53
513
453
453
                                                                                                                                                                                                                             -- GGGGACCCCGGGCCGCGAGGAGACGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4.64e-14
451.00
45.58%
33.90%
17.76%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512
574
512
674
674
453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Œ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NONHELICAL REGICLO.
HYDROXYLATION.
HYDROXYLATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COLLAGEN ALPHA 1(X) CI NONHELICAL REGION (NC: TRIPLE-HELICAL REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -GlyTyrProGlyGluGlnGlyLeuProGlyProLysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EAB48B1EF174B145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative: Mismatches: Indels: Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length: Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     X) CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (NC1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                     - ACTCCTCGTCCTGCTGCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  674
119
41
112
79
                                                                                                                                                                                                                                                                                                                                                                                   -ProGlnGlyValLysGly
                                                                                                                                                                                                                             -GGACCCGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -GlyLeuAsp
                                                                                                                                      ·CC 531
                                                                                                                                                                                                                             495
                                                                                                                                                                                                       504
                                                                                                               544
                                                                                                                                                                                  529
                                                                                                                                                                                                                                                   484
                                                                                                                                                                                                                                                                         457
                                                                                                                                                                                                                                                                                                                     435
                                                                                                                                                                                                                                                                                                                                          444
                                                                                                                                                                                                                                                                                                                                                                                    424
                                                                                                                                                                                                                                                                                                                                                                                                          315
                                                                                                                                                                                                                                                                                                                                                                                                                               414
```

```
RESULT 5
CALA_M

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
COLLAGEN MRNAS.";
BIOCHAIM. BIOCHYS. ACTA 1130:78-80(1992).

-!- FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE MINERALIZATION ZONES OF HYALINE CARTILAGE.

-!- SUBUNIT: HOMOTRIMER.
-!- SUBUNIT: HOMOTRIMER THIRD POSITION OF THE TRIPEPTIDE RICHARD POSITION OF THE TRIPEPTIDE RICHARD POSITION OF THE TRIPEPTIDE RICHARD POSITION OF THE CHAINGE.
                                                                                                                                                                                                  MEDLINE-92182017; PubMed-1543751;
Elima K., Metsaeranta M., Kallio J., Peraelae M.,
Garofalo S., de Crombrugghe B., Yuorio E.;
"Specific hybridization probes for mouse alpha 2(:
                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-92267014; PubMed-1587271;
Apte S.S., Seldin M.F., Hayashi M., Olsen B.R.;
"Cloning of the human and mouse type X collagen
the mouse type X collagen gene to chromosome 10
Eur. J. Biochem. 206:217-224(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDILINE-93238750; PubMed-8477738; Kong R.Y.C., Kwan K.M., Lau E.T., Grant M.E., Cheah K.S.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN-129/Sv; TISSUE-Liver;
MEDLINE-93238750; PubMed-847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Intron-exon structure, alternative use the mouse collagen X gene, Coll0a-1."; Eur. J. Biochem. 213:99-111(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Elima K., Eerola I., Rosati R
de Crombrugghe B., Vuorio E.;
"The mouse collagen X gene: c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1995 (Rel.
01-NOV-1995 (Rel.
01-NOV-1995 (Rel.
                                                                                                                                                                                                                                                                                                            STRAIN-C57BL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Biochem. J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       structure and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Collagen alpha 1(X) chain precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CA1A_MOUSE
                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 385-627 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 51-680 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-93143676; PubMed-8424763;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205306;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGACAGCACCTTCTCCGGATTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              uTyrValHisSerSerPheSerGlyPheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    uAsnAspGlnValTrpLeuGlnLeuProAsnSerGluSerAsnGlyLeuTyrSerSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rAsnValTrpValAlaLeuTyrLysAsnGlySerProValMetTyrThrTyrAspGluTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rGlnLysGlyTyrLeuAspGlnAla-----SerGlySerAlaValIleAspLeuMetGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCC---TCTTTCTTCCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        collagen X gene: complete nd expression pattern."; 289:247-253(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32, Last sequence up 32, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata;
Rodentia;
  THE THIRD POSITION OF THE TRIPEPTIDE REPEATING HYDROXYLATED IN SOME OR ALL OF THE CHAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; | Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Metsaranta M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J.T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  promoter
                                                                                                                                                                                                    2(IX) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Boot-Handford
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Garofalo
                                                                                                                                                                                                                                                                                                                                                                                                           genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence,
                                                                                                                                                                                                                                                        Eerola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostomi;
; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                     and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             s:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     expression
                                                                                                                                                                                                       alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                   mapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Perala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       768
```

```
Percent Similarity:
Best Local Similarit
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment:
Pred. No.:
Score:
                                                                                                                                                             Qy
                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SQUITE TETTTE TO DESCRIPTION OF THE TETT TO DESC
                                                                 õ
                                                                                                           밁
                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                       몽
                              日
                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-41 (1-1377) x CAlA_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; X67348; CAA47763.1; -.
EMBL; X65121; CAA46237.1; -.
EMBL; X63013; CAA4474.1; -.
EMBL; X21610; CAA79736.1; -.
PIR; S2807; S28807.
PIR; S31216; S31216.
PIR; S32215; S32215.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Extracellular matrix; Connective tissue; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS01113; C1Q;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PRO0007; COMPLEMNTC1Q.
ProDom; PD000007; Collagen; 2.
SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MGD; MGI:88445; Coll0al.
InterPro; IPRO01073; C1q.
InterPro; IPR001087; Collagen
InterPro; IPR001087; Collagen; Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EM European Bioinformatics Institute. There are no restr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                     115
                                                                           160
                                                                                                                          295
                                                                                                                                                                                                                     276
                                                                                                                                                                                                                                                                                                                    256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity:
                                                                                                                                                                                                                                                                    82
                                                                                                                                                                                                                                                                                                                                                                 28
                                                                                                                                                                                                                GlyIleProGlyGluLysGlyHisProGlyAla---ProGlyIleAlaGlyProProGly
                                                                                                                                                                                                                                                                                                            GlyLysGlnGlyArgGluGlyIleGlyLysProGlyAlaIleGlySerProGlyGlnPro
                         LeuProGlyAlaProGlyAlaLysGlyGluArgGlyProAlaGlyHisProGlyGluPro
                                                                      GCCATCGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCGG---
                                                                                                                   AlaProGlyPheGlyLysGlnGlyLeuProGlyLeuArgGlyGlnArgGlyProAlaGly
                                                                                                                                                                  GCACCACCAACTGGAGGGTCCGGAGTAGCGAGC---
                                                                                                                                                                                                                                                                                                                                                            GGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
57
545
545
545
545
545
248
286
286
306
417
417
550
550
571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.34e-14
448.00
39.95%
30.61%
17.64%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C1Q.
P -> L (IN)
A -> S (IN)
T -> S (IN)
T -> S (IN)
T -> S (IN)
T -> C (IN)
R -> K (IN)
R -> K (IN)
R -> K (IN)
R -> K (IN)
G -> IY (IN)
FD -> IY (IN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION.
NONHELICAL REGION (NC1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COLLAGEN ALPHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -> T (IN REF. 3) FE984CA99AF708E2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                              (1-680)
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L (IN REF. 3).

F (IN REF. 2).

F (IN REF. 3).

S (IN REF. 3).

( (IN REF. 3).

( (IN REF. 3).

1 (IN REF. 3).

1 (IN REF. 3).

1 (IN REF. 3).

1 (IN REF. 3).
                                                                                                                                                                                                                                                               -GGCGCCTGGCCGGGGGAGAAGCGCGGGGGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                There are no restrictions ong as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1(X)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              680
-131
40
122
135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hydroxylation;
                                                                                                                                                                  ----GCCCCGAAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gh a collaboration -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                   314
                                                                                                                                                                                                                                                             114
                                                                                                                                                                  159
                                                                                                                                                                                                                294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     way
                                                                                     δÃ
                                                                                                                                       밁
                                                                                                                                                                                       Q
                                                                                                                                                                                                                                      뭕
                                                                                                                                                                                                                                                                              Ø
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                 . 10
                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                            901
                                                                                                                                                                                                                                         632
                                                                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                                                                                                     592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            eThrValIleLeuSerLysAlaTyr-----ProAlaValGlyAlaProIleProPheAs
                                               CACCTTCTCCGGATTTCTGGTG
                                                                                                                                                                                                                                                                                                                                                               TGATCTGGTGAAGAATGGC---GAATCCATTGCCTCTTTCTCCAGTTTTTCGGGGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oProGlyProArgGlyHisSerGlyGluProGlyLeuProGlyProProGlyProProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCGGGCCGCGAGGAGAGGCG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGGGACCTCGA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rGlyProProGlyValProGlyPheProGlySerLySGlyAspProGlyAsnProGlyAl 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lGlyGlyThrProGlyLeuArgGlyProValGlyProValGlyAlaLysGlyValProGl
                                                                                                                                                                                       GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                {\tt slleProGlyIleTyrTyrPheSerTyrHisValHisValLysGlyThrHisValTrpValLysGlyThrHisValTrpValLysGlyThrHisValLysGlyThrHisValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLypValLyp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pGluIleLeuTyrAsnArgGlnGlnHisTyrAspProArgSerGlyIlePheThrCysLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGCGTGCTGGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           uSerGlyMetProLeuValSerAlaAsnHisGlyValThrGlyMetProValSerAlaPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     yProProGlyGlnAlaValMetProAspGlyPheIleLysAlaGlyGlnArgProArgLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTGCCGGGGAGTGCCTCCGTGCCT------------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               aProGlyProAlaGlyIleAlaThrLysGlyLeuAsnGlyProThrGlyProProGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           yHisAsnGlyGluAlaGlyProArgGlyGluProGlyIleProGlyThrArgGlyProTh 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACCAT---
                                                                                                                                         lTrpLeuGlnLeuProAsnAlaGluSerAsnGlyLeuTyrSerSerGluTyrValHisSe
                                                                                                                                                                                                                                      rLeuAspGlnAla-----SerGlySerAlaIleMetGluLeuThrGluAsnAspGlnVa
                                                                                                                                                                                                                                                                                                                                   lGlyLeuTyrLysAsnGlyThrProThrMetTyrThrTyrAspGluTyrSerLysGlyTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGCCGCGACGGCGCCCCGGGGCTCCCGGGAGAGAAAGGCCGAGGCCGGGAGGCCGGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oGlyLeuAsnGlyProLysGlyAsnProGlyLeuProGlyGlnLysGlyAspProGlyVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaArgGlyAlaArgGlyProProGlyLeuAspGlyLysThrGlyTyrProGlyGlu-Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HisGlyIleProGlyAlaLysGlyGluIleGlyLeuValGlyProAlaGlyProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           {\tt GlyLeuProGlySerProGlyAsnMetGlyProGlnGlyProLysGlyIleProGlyAsn}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --- CGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCGT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -TGCCCGGGCACCCCGGCCTTCCA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -GGGCCTGGCGGCCGGCTCGCCCCCCACTGGACGACAACAAGATCCC
                                                                                            922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACCCGCGGGGCCCACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -CCTGCTGCTCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -CCGCGATCCGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          - GGCACGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGA 462
                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                     632
                                                                                                                                                                                                                                                                                                                                                                                                                                612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414
                                                                                                                                            670
                                                                                                                                                                                                                                      650
                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   374
```

MOUSE

```
A Arakawa T. Hara A., Finidata K., Yoshino M., Itoh M., Ishii Y.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Battalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Battalov S., Casavant T.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Sasaki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaii H., Yohrenti S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APM1_MOUSE S
Q60994; Q62400;
Q1-NOV-1997 (Rel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hu E., L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Adiponectin precursor (30 kDa adipocyte complement-related (ACRP30) (Adipocyte specific protein AdipoQ).
APM1 OR ACRP30 OR ADIPOQ.
                                                                                                                                                Yamauchi T., Kamon J., Waki H., Terauchi Y., Kubo
Mori Y., Ide T., Murakami K., Tsuboyama-Kasaoka N
Mori Y., Gavrilova O., Vinson C., Reitman M.L.
Akanuma Y., Gavrilova O., Vinson C., Reitman M.L.
Shudo K., Yoda M., Nakano Y., Tobe K., Nagai R.,
                                                                                                                                                                                              Yamauchi T., Kamon
Mori Y., Ide T., Mu
                                                                                                                                                                                                                                                                                                      Nature
[5]
                                                                                                                                                                                                                                                                                                                                                                        Wynshaw-Boris A., Yoshida
Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of the mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Adipocyte;
MEDLINE-96070757; PubMe
Scherer P.E., Williams
                                                                                 associated with
                                                                                                                                                                                                                                                   MEDLINE=21372498; PubMed=11479627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               adipocytes.".
J. Biol. Cher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APM1 OR ACRP30 OR ADI
                                                                                                                         Froguel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=21085660; PubMed=11217851; Kawai J., Shinagawa A., Shibata K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. STRAIN-C57BL/6J; T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. PubMed=11162643;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Fibroblast;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Biochem. Biophys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Chromosomal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Das K., Lin Y., Widen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-96209999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nerer P.E., Williams S., Fogliano M., novel serum protein similar to Clq,
                                                                       fat-derived hormone adiponectin ciated with both lipoatrophy and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            E-96209999; pubMed-8631877;
Liang P., Spiegelman B.M.;
Q is a novel adipose-specific gene dysregulated in obesity.";
1. Chem. 271:10697-10703(1996).
                                                                                                                                                                                                                                                                                                                          ional annotation of a 409:685-690(2001).
                                                                                                                              P., Kadowaki T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              localization, gene encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 270:26746-26749(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-Heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PubMed=7592907;
liams S., Foglia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Commun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhang Y., Scherer P.E.;
, expression pattern, and promoter analysis
, adipocyte-specific secretory protein
                                                                                                                                                                                                                                                                                                                                                 full-length mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 280:1120-1129(2001).
                                                                         reverses insulin obesity.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             produced exclusively in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A
                                                                                                                                                   , Kubota N., Hara ]
aoka N., Ezaki O.,
n M.L., Kagechika |
i R., Kimura S., To
                                                                                                                                                                                                                                                                                                                                               CDNA
                                                                                                                                                                                                                                                                                                                                                 collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murinae;
                                                                                                   resistance
                                                                                                                                                                                                                                                                                                                                                                                                              o N.,
, Storch K.-F.,
wilming L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein)
                                                                                                                                                   Tomita
                                                                                                                                                   .
.
Q
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                    Score:
                                                              Alignment Scores:
                                                                                              CONFLICT
CONFLICT
CONFLICT
                                                                                                                                     MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                                          PRINTS; PRODUOT; COMPLEMNTC1Q. SMART; SM00110; C1Q; 1. PROSITE; PS01113; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                         Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 or send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This
                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                       Polymorphism
                                                                                                                                                                                                                                                                                                 Hormone; Collagen;
                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR001073; Clq. InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             entities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                action
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=21372499; PubMed=11479628;
Berg A.H., Combs T.P., Du X., Brownlee
"The adipocyte-secreted protein Acrp30"
                                                     No.:
                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                   MGD; MGI:106675; Acrp30
                                                                                                                                                                                                                                                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INDUCTION: DURING HOR ACTIVATED BY INSULIN. SIMILARITY: CONTAINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBUNIT: HOMOOLIGOMER. SUBCELLULAR LOCATION: : TISSUE SPECIFICITY: SYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: IMPORTANT NEGATIVE REGULATOR IN HEMATOPOIESIS AND IMMUNE SYSTEMS; MAY BE INVOLVED IN ENDING INFLAMMATORY RESPONSES THROUGH ITS INHIBITS ENDOTHELIAL IN-KAPPAB SIGNALING THROUGH A CAMP-DEPENDENT PATHWAY. INHIBITS TNF-ALPHA-INDUCED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: CONTAINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SECRETED INTO SERUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EXPRESSION OF ENDOTHELIAL ADHESION CONTROL OF FAT METABOLISM AND INSUI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Med. 7:947-953(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                  U37222; AAA80543.1; -. U49915; AAB06706.1; -.
                                                                                                                                                                                                                                                                                                                                                                                              AF304466; AAK13417.1; AK003138; BAB22597.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 s requires a license agreement (S an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONTAINS 1 COLLAGENOUS CONTAINS 1 C1Q DOMAIN.
        3.39e-13
433.50
53.39%
40.64%
17.07%
                                                                                                        17
247
1110
247
39
47
50
56
65
79
98
1107
1113
1113
                                                                                                                                                                                                                                                                                                  Signal;
                                                                                    26841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HORMONE - INDUCED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SYNTHESIZED
                                                                                    MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SECRETED IN PLASMA
                                                                                                                                                                                                                                                                                                  Repeat; Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           agreement (See http://www.isb-sib.
                                                                                                                                                          HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
                                                                                              * G A A P M
                                                                                                                                                                                                                                   INTERCHAIN (BY
                                                                                                                                                                                                                                                        COLLAGEN-LIKE
                                                                                                                                                                                                                                                                 ADIPONECTIN
                                                                                    137B687D873988C4
        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                             വ വ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INSULIN
                                                                                               (IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXCLUSIVELY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . INHIBITS THE-ALF
ON MOLECULES. INVO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADIPOSE DIFFERENTIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          enhances
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                       REF.
                                                                                                                                                       Y SIMILARITY).
(BY SIMILARIT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scherer P.
                                                                                                                                                                     Y SIMILARITY).
Y SIMILARITY).
Y SIMILARITY).
Y SIMILARITY).
Y SIMILARITY).
Y SIMILARITY).
                                                                                                                                                            SIMILARITY)
247
102
32
92
25
                                                                                    CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВУ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hepatic
                                                                                                                                                                                                                                                                                                 Plasma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INVOLVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADIPOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 is
for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N
```

```
CALSULT CARSULT CARSUL
                                                                                                                                                                                                                                                                                                                                                                                     P14282;
01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
01-NOV-1995 (Rel. 32, Last annotation update)
                                                                                                                                                                                                                                                          COLBAI.
Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Leporidae; Oryctolagus.
                  SEQUENCE FROM N.A.

MEDILINE-89380199; PubMed-2476437;

MEDILINE-89380199; PubMed-2476437;

Yamaguchi N., Benya P.D., van der Rest M., Ninomiya Y.;

Yamaguchi N., Benya P.D., van der Rest M., Ninomiya Y.;

The cloning and sequencing of alpha 1(VIII) collagen cDNAs demonstrate that type VIII collagen is a short chain collagen and contains triple-helical and carboxyl-terminal non-triple-helical domains similar to those of type X collagen.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CA18_RABIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RABIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              {\tt ThrGluGluLeuAlaProAlaLeuValProProProLysGlyThrCysAlaGlyTrpMet}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TrpLeuGlnValTyrGlyAspGlyAspHisAsnGlyLeuTyrAlaAspAsnValAsnAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LysAsnValAspGlnAlaSerGlySerValLeuLeuHisLeuGluValGlyAspGlnVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValSerLeuPheLysLysAspLysAlaValLeuPheThrTyrAspGlnTyrGlnGlu---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AsnIleProGlyLeuTyrTyrPheSerTyrHisIleThrValTyrMetLysAspValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ThrLysIlePheTyrAsnGlnGlnAsnHisTyrAspGlySerThrGlyLysPheTyrCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      {\tt ProGlyThrProGlyArgLysGlyGluProGlyGluAlaAlaTyrMetTyrArgSerAlam}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyProLysGlyGluThrGlyAspValGlyMetThrGlyAlaGluGlyProArgGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCGACGGCGCCCCGGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaGlyIleProGlyHisProGlyHisAsnGlyThrProGlyArgAspGlyArgAsp---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGC------
264:16022-16029(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----GlyThrProGlyGluLysGlyGluLysGlyAspAlaGlyLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -GlyLeuGluThrArgValThrValPro---AsnValProIleArgPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---CCCGGGCCGCGAGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
                                                                   δÃ
                                                                                                                                                                                       δã
                                                                                                                                                                                                                                                                                                           ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                           DЪ
                                                                                                                                         밁
                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-41 (1-1377) x CA18_RABIT (1-744)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -I- FUNCTION: MAJOR COMPONENT OF THE DESCEMET'S MEMBRANE (BASEMENT MEMBRANE) OF CORNEAL ENDOTHELIAL CELLS:
-I- SUBUNIT: MAY BORN HOMOTRIMERS, OR HETEROTRIMERS IN ASSOCIATION WITH ALPHA 2(VIII) TYPE COLLAGENS.
-I- PTM: PROLLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.
-I- MISCELLANEOUS: FOUR CONSECUTIVE GLY-PRO-PRO TRIPLETS ARE PRESENT AT THE C-TERMINUS OF THE TRIPLE-HELICAL REGION. THESE MAY PROVIDE HIGH THERMAL STABLILTY OF THIS REGION OF THIS REGION.
-I- SIMILARITY: STRONG, TO ALPHA 2 TYPES VIII AND X COLLAGENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PRO0007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
Extracellular matrix; Connective tissue; Repeat;
Glycoprotein; Cell adhesion; Collagen; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute. The 
long profit institutions as long 
modified and this statement is not removed 
entities requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no was the property of the second 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR001073; C1q
InterPro; IPR000087; Col.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; J05042; AAA31204.1; -. PIR; A34246; A34246.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No : :
                                                                                                                                                                                                                                                             409
                                                                                                                                                                                                                                                                                                                                                                                     389
                                                                                                                                                                                                217
                                                                                                                                                                                                                                                                                                                       169
                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyValGlyLysProGlyPheProGlyProLysGlyAspArgGlyIleGlyGlyValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGGACTGGGGTGACGGCAGGGCAGGG
                     ProProGlyIleArgGlyLeuProGlyProIleGlyProLysGlyGluAlaGlyHisLys
                                                                                  CCCACTGGACGACAACAAGATCCCCAGCCT-----
                                                                                                                                                                                                                                                                                                                       GAGCCGGGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                         CCA-----ACTGGAGGGTCCGGAGTAGCGAGC-----GCCCCGAAGGAGGCCATCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyAlaLeuGlyProArgGlyGluLysGlyProValGlyAlaProGlyMetGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ecccc--
                                                                                                                                                                                                                                                          PheProGlyProLysGlyGluGlyGlyIleVal---GlyProGlnGlyProProGlyPro
                                                                                                                                                                                                                                                                                                                                                                              ProGlyGluProGlyLeuProGlyIleProGlyProMetGlyProProGlyAlaIleGly
                                                                                                                                                                                                744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1
21
29
118
172
572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ä,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            744
117
571
744
744
73358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPLEMNTC1Q
                                                                                                                                         .uProGlyLeuGlnGlyPheProGlyLysProGlyPheLeuGlyGluValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.84e-13
426.50
42.218
31.418
16.798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ¥.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COLLAGEN ALPHA 1(VIII) CHAIN.
NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION.
NONHELICAL REGION (NC1).
C1Q.
GARCEFIEF8274E99 CRC64;
                                                                                                                                                                                                                                                                                                                 GGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -TGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  744
125
43
130
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         by and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 collaboration
```

밁 Š 뫄 Qy 밁 Ş B δ 문 δÃ 밁 δÃ Вb QΥ В γQ 밁 Qy В δÃ В QΥ 뫄 Ş Db

216

408 168 388 120 368 81

447 276

```
밁
                                                                                                                                                                                                                                                                                                       δô
                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                    S B
                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g 09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ϋ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                     APM1_HUMAN
Q15848;
Q1-NOV-1997
Q1-NOV-1997
Q1-NOV-1997
                                                                                          binding
APM1 OR
                 Mammalia; Eutheria; NCBI_TaxID=9606; [1]
                                                                                                                       01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Adiponectin precursor (30 kDa adipocyte complement-related
(ACRP30) (Adipose most abundant gene transcript 1) (apM-1)
                                                                                                                                                                                                                                      HUMAN
   SEQUENCE
                                                             Eukaryota; Metazoa;
                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                               874
                                                                                                                                                                                                                                                                                                                                             705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           307
                                                                                          protein).
 FROM
                                                                                                                                                                                                                                                                                GCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGA
                                                                                                                                                                                                                                                                                                             CATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGC:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pMetGlyLeuGlyIleAspGlyValLysThrProHisAlaTyrAlaAlaLysLysGlyLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nProGlnThrGlyIlePheThrCysGluValProGlyValTyrTyrPheAlaTyrHisVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oProValGlyAlaProIleLysPheAspArgLeuLeuTyrAsnGlyArgGlnAsnTyrAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sAsnGlyGlyProAlaTyrGluMetProAlaPheThrAlaGluLeuThrAlaProPhePr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                yProlleGlyProProGlyIleProGlyProLysGlyGluProGlyLeuProGlyProPr
                                                                                                                                                                                                                                                                                                                                                                                                      rThrTyrAspGluTyrLysLysGlyPheLeuAspGlnAla-----SerGlySerAlaVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oProGlyProProAlaValMetProProThrProAlaProGlnGlyGluTyrLeuProAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCGGGGAGTGCTCGGTGCCTCCGCGATCC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \tt oGlyAlaLeuGlyProGlnGlyGlnProGlyLeuProGlyProProGlyProProGlyProProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyProGlyP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oGlyPheProGlyValGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGGGCGGAGCCGGGACCTCGAGGGGACCCC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               eProGlyAspGlnGlyLeuGlnGlyProProGlyIleProGlyIleThrGlyProSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCCGGGGCTCCCGGGAGAGAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                    lHisCysLysGlyGlyAsnValTrpValAlaLeuPheLysAsnAsnGluProValMetTy
                                                                                                                                                       (Rel. 35, (Rel. 35, Rel. 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGCCACCATGGCAGCCAGGGCTT
                                                                           (Human)
 z
                                                                                             OR GBP28.
                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -GGGCCGCGAGGAGAG---
                                                Primates;
                                                             Chordata;
                                             Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                    244
                                                                                                                                                                                                                    B
                                                Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGGGACCCGCGGGGCCCACCGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTTCAGCGCCAAGCGCTCCGA
                                                             Euteleostomi;
                                                                                                                        (Gelatin)
                                                                                                                                                                                                                                                                                                                                                                            873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            423
VARIANTS ARG-84; | MEDLINE=21671103;
                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHARACTERIZATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHARACTERIZATION.
MEDLINE-20417747;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Maeda K., Okubo K.,
Matsubara K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Adipose tissue;
MEDLINE-96224171; PubM
                                                                                                                                                                                                                                                                                               Med. 7:941-946(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shimomura
```

```
Hara K., Boutin P., Mori Y., Tobe K., Dina C., Yasuda K., Yamauchi T., Otabe S., Okada T., Eto K., Kadowaki H., Hagura R., Akanuma Y., Yazaki Y., Nagai R., Taniyama M., Matsubara K., Yoda M., Nakano Y., Kimura S., Tomita M., Kimura S., Ito C., Froguel P., Kadowaki T.; "Genetic variation in the gene encoding adiponectin is associated with an increased risk of type 2 diabetes in the Japanese population."; Diabetes 51:536-540(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WEDLINE-21372498; PubMed-11479627;
Yamauchi T., Kamon J., Waki H., Terauchi Y., Kubota N., Ezak
Mori Y., Ide T., Murakami K., Tsuboyama-Kasaoka N., Ezak
Akanuma Y., Gavrilova O., Vinson C., Reitman M.L., Kagec
Shudo K., Yoda M., Nakano Y., Tobe K., Nagai R., Kimura
Froguel P., Kadowaki T.;
"The fat-derived hormone adiponectin reverses insulin re
associated with both lipoatrophy and obesity.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-20440368; pubMed-10982546;
Ouchi N., Kihara S., Arita Y., Okamoto Y., Maeda K.,
Hotta K., Nishida M., Takahashi M., Muraguchi M., Okamoto Y., Matsuzawa Y.m
Nakamura T., Yamashita S., Funahashi T., Matsuzawa Y.
"Adiponectin, an adipocyte-derived plasma protein, in
endothelial NF-kappaB signaling through a cAMP-depend
Circulation 102:1296-1301(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-20417747; PubMed-10961870;
Yokota T., Oritani K., Takahashi I.,
Ouchi N., Kihara S., Funahashi T., T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "The human apM-1, an adipocyte-specific gene linked TNF's and to genes expressed in activated T cells, i chromosome 1q21.3-q23, a susceptibility locus identi combined hyperlipidemia (FCH)."; biochem. Biophys. Res. Commun. 260:416-425(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=99196984; PubMed=10095105; Saito K., Tobe T., Minoshima S., Asakawa S., Sakano Y., Shimizu N., Tomita M.; "Organization of the gene for gelatin-binding Gene 229:67-73(1999).
                                                                                                                                                                                                                                                                                                                              Takahashi M., Arita Y., Yamagata K., Matsukawa
Horie M., Shimomura I., Hotta K., Kuriyama H.,
Yamashita S., Funahashi T., Matsuzawa Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                negatively regulates the growth functions of macrophages."; Blood 96:1723-1732(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=99333693; PubMed=10403784; Schaeffler A., Orso E., Palitzsch K.D., Fuerst A., Schoelmerich J., Schmitz G.;
                                                                                                                                                                                                                                                                               "Genomic structure and mutations in
adiponectin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matsuzawa Y.;
"Adiponectin, a new member of the family or source."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "cDNA cloning and expression of a novel adipose specifi factor, apMI (AdiPose Most abundant Gene transcript 1). Biochem. Biophys. Res. Commun. 221:286-289(1996).
                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=20378830; PubMed=10918532;
                                                                                                                                                                                                                                                                                                                                                                                                                                VARIANT ADIPONECTIN DEFICIENCY CYS-112
                                                                                                                                                                                                                                                     Int. J. Obes. Relat. Metab. Disord.
                                                                                                                                                                          MET-117; THR-164;
PubMed-11812766;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PubMed-8619847;
                                                                                                                                                                                                    THR-164;
                                                                                                                                                                                                       SER-221 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Funahashi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tenner
                                                                                                                                                                                                                                                        24:861-868(2000).
                                                                                                                                                                                                                                                                                                    adipose-specific gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , Ishikawa J.
Tenner A.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Buechler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein, inhibi
cAMP-dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Τ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           soluble
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a J., ruc.
T., Tomiyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sumiya
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                identified for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                                                                     Y., Okutomi
Kihara S.,
                                                                                                                                                                                                    PRO-241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matsuzawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ċ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matsuyama
Omiyama Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ohmoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               progenitors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kagechika
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           inhibits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N., H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  defense collagens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ន
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kuriyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drobnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GBP28).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hara
ki O.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S., Tomita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pathway.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           collagen-like
                                                                                                                                                                                                                                                                                                                                                          Nakamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ~;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Σ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     familial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of.
                                                                                                                                                                                                                                                                                                                                                          ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
:
```

```
STITE TO THE TOTAL THE TOT
                         Pred. No.:
Score:
                                                        Alignment Scores:
   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                       DISULFID
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 1.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
Hormone; Collagen; Signal; Repeat; Hydroxylation;
                                                                                                 SEQUENCE
                                                                                                                                                                       VARIANT
                                                                                                                                                                                                          VARIANT
                                                                                                                                                                                                                                               VARIANT
                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AJ1314
MIM; 605441;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         between
                                                                                                                                                                                                                                                                                                                           VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Polymorphism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR001073; Clq.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBUNIT: HOMOOLIGOMER (POTENTIAL).
SUBCELLULAR LOCATION: SECRETED IN PLASMA.
TISSUE SPECIFICITY: EXPRESSED ONLY IN THE ADIPOSE TISSUE.
DISEASE: Defects in APM1 are the cause of adiponectin deficiency, resulting in very low concentration of plasma adiponectin.
Decreased adiponectin plasma levels are associated with obesity insulin resistance, and diabetes type 2.
PHARMACEUTICAL: Adiponectin might be used in the treatment of diabetes type 2 and insulin resistance.
SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN. SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: IMPORTANT NEGATIVE REGULATOR IN HEMATOPOIESIS AND IMMUNE SYSTEMS; MAY BE INVOLVED IN ENDING INFLAMMATORY RESPONSES THROUGH ITS INHIBITORY FUNCTIONS. INHIBITS ENDOTHELIAL NF-KAPPAB SIGNALING THROUGH A CAMP-DEPENDENT PATHWAY. IMHIBITS TNF-ALPHA-INDUCED EXPRESSION OF ENDOTHELIAL ADHESION MOLECULES. INVOLVED IN THE CONTROL OF FAT METABOLISM AND INSULIN SENSITIVITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AB012165; BAA86716.1; -.
AB012164; BAA86716.1; -.
AJ131460; CAB52413.1; -.
AJ131461; CAB52413.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D45371;
                                                                                               244 AA;
                                                                                                                                                                     221
                                                                                                                                                                                                          164
                                                                                                                                                                                                                                               117
                                                                                                                                                                                                                                                                                                                       15
108
108
36
44
47
53
53
62
71
71
104
86
                                                                                                                                                                                                                                                                                  112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BAA08227.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disease
 9.12e-13
424.00
50.38%
                                                                                                                                                                                                                                                                                                                     244
1107
2444
447
477
53
62
71
76
86
86
86
                                                                                                                                                                                                                                               117
                                                                                                                                                                                                        164
                                                                                               26414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mutation; Obesity; Diabetes mellitus.
                                                                                               ¥
                                                                                                                                                                                                                                                                                                                                                                                                                 HYDROXYLATION
HYDROXYLATION
HYDROXYLATION
                                                                                                                                                                                                                                               K -> C (IN ADIPONECTIN
/FTId=VAR_013274.
V -> M
                                                                                           FTId=VAR_013278.
64D8C6C1204B1018
                                                                                                                                                                                                                                                                              /FTId=VAR_013273
                                                                                                                                                                                                                                                                                                                                       HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                              HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                 HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COLLAGEN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
                                                                                                                                                  /FTId=VAR_013277
                                                                                                                                                                                       /FTId=VAR_013276
                                                                                                                                                                                                                          /FTId=VAR_013275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERCHAIN (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADIPONECTIN.
   Conservative:
                                                                                                                                                                                                                                                                                                                                       (BY
(BY
(BY
(BY
                                                                                                                                                                                                                                                                                                                                                                                                                                  (BY SIMILARITY). (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (BY SIMILARITY). (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY).
                                                                                                                                                                                                                                                                                                                                       SIMILARITY)
SIMILARITY)
SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY).
SIMILARITY).
                                                                                             CRC64;
244
106
26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plasma;
                                                                                                                                                                                                                                                                                  DEFICIENY)
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                             Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
```

```
RESULT 9
CA28_HUMAN
ID CA28_HUMAN
AC P25067;
DT 01-MAY-1992
DT 01-MAY-1992
DT 16-OCT-2001
DE COllagen all
GN COLBA2.
OS Homo sapiens
OC Eukaryota; N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-944-944-41 (1-1377) x APM1_HUMAN (1-244)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity:
Query Match:
                              P25067;
01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
16-OCT-20n alpha 2(VIII) chain (Endothelial collagen)
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                          926
                                                                                                                                                                                                                                                                                                                                                                                                                                               183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          105
                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  242 GTCCTGCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                                    HisAsp 242
                                                                                                                                                                                                                                                          TCCGAC 931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTG
                                                                                                                                                                                                                                                                                             ArgAsnGlyLeuTyrAlaAspAsnAspAsnAspSerThrPheThrGlyPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                   GCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTG---GGTGTGGGTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrIlePro---AsnMetProIleArgPheThrLysIlePheTyrAsnGlnGlnAsnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGAACGAGCAGGGACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGGCGAGGGCGGAGGCCGGGACCTCGAGGGGAC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyAlaProGlyArgAspGlyArgAsp----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCTTGCCGGGCCGCGATGGCCGCGACGCCGCGCGCGCCCGGGGCTCCGGGAGAG
                                                                                                                                                                                                                                                                                                                                 TACATTGGCATCTATGCCAGCATCAAGACAGCACCTTCTCCGGATTTCTGGTGTAC
                                                                                                                                                                                                                                                                                                                                                                   ValLeuLeuHisLeuGluValGlyAspGlnValTrpLeuGlnValTyrGlyGluGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuPheThrTyrAspGlnTyrGlnGluAsnAsnValAspGlnAla-----SerGlySer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGluGlyAlaTyrValTyrArgSerAlaPheSerVal---GlyLeuGluThrTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValLeuLeuLeuAlaLeu--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HisIleThrValTyrMetLysAspValLysValSerLeuPheLysLysAspLysAlaMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValProGlyAlaGluGlyProArgGlyPheProGlyIleGlnGlyArgLysGlyGluPro 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LysGlyGluLysGlyAspProGlyLeuIleGlyProLysGlyAspIleGlyGluThrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuProLysGlyAlaCysThrGlyTrpMetAlaGlyIleProGlyHisProGlyHisAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----ProGlyHisAspGlnGluThrThrThrGlnGlyProGlyValLeuLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCCTCTGCCCGGGGCAC-----
                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40.46%
16.69%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -CCCGGGCCGCGAGGAGAGGCGGGGACCCGGGGGCCCACCGGGCCTGCC
                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCAGGCACGCCGGGCCACCATGGCAGCCAG
                                                                                                                                                  635
                                                                                                                                                  Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----GlyThrProGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          72
58
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .cccgc----
                                                       (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        123
                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                 925
                                                                                                                                                                                                                                                                                                                                                                     220
                                                                                                                                                                                                                                                                                                                                                                                                         865
                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              325
```

```
ρ
                                                             Š
                                                                                          밁
                                                                                                                        Ωy
                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                          В
                                                                                                                                                                                 Ş
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                  US-09-944-944-41 (1-1377) x CA28_HUMAN (1-635)
                                                                                                                                                                                                                                                                                                                                                  Alignment Scores: Pred. No.: Score:
                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR001073; C1q.
InterPro; IPR000087; Collage
Pfam; PF00386; C1q; 1.
Pfam; PF00391; Collagen; 8.
SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         collagen
J. Biol.
                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genew; HGNC: MIM; 120252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Muragaki Y., Jacenko Olsen B.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. The use by non-profit institutions as long a modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE-91210292;
                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cell adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Extracellular matrix; Connective tissue;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; M60832; AAA62822.1;
Genew; HGNC:2216; COL8A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "The alpha 2(VIII) collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              llagen family located on the human chromosome 1.";
Biol. Chem. 266:7721-7727(1991).

FUNCTION: MAJOR COMPONENT OF THE DESCEMET'S MEMBRANE MEMBRANE) OF CORNEAL ENDOTHELIAL CELLS.

SUBUNIT: MAY FORM HOMOTRIMERS, OR HETEROTRIMERS IN AS WITH ALPHA I (VIII) TYPE COLLAGENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEA UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS. SIMILARITY: STRONG, TO ALPHA 1 TYPES VIII AND X COLLAGENS. SIMILARITY: CONTAINS 1 C1Q DOMAIN.
               187
                                                                      127
                                                                                                                                                                                                               272
                                                                                                                                                                                    70
              GCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCC----
                                                                                               LeuArgGlyGluAlaGlyProGlyGlyProProGlyValProGlyIleArgGlyAspGln
                                                                                                                                                                                                            GlyAspArgGlyGluProGlyGluAspGlyAspProGlyGluGlnGlyProGlnGlyLeu
                                                                                                                                                                                                                                       GGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGAC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PS01113; C1Q; 1.
                                        GlyProSerGlyLeuAlaGlyLysPro---GlyValProGlyGluArgGlyLeuProGly
                                                                    GGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGACT
                                                                                                                                                      GlyGlyProProGlyLeuProGlySerAlaGlyLeuProGlyArgArgGlyProProGly
                                                                                                                                                                                                                                                                                                                                                                                                    <1
12
469
500
635
                                                                                                                                                                                                                                                                                                                                                                                                        ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PubMed=2019595;
nko O., Apte S.,
                                                                                                                            AGCGCGGGGGCTGGAGCACCACCA-----
                                                                                                                                                                                                                                                                                                          1.53e-12
417.50
41.99%
35.17%
16.44%
                                                                                                                                                                                                                                                                                                                                                                                                                    635
                                                                                                                                                                                                                                                                                                                                                                                                        60527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Primates;
                                                                                                                                                                                  GGCAGGGCAGGGGGGCCC---TGGCCGGGGAGA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Collagen
                                                                                                                                                                                                                                                                                                                                                                                                        WW.
                                                                                                                                                                                                                                                                                                                                                                                                    NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION.
NONHELICAL REGION (NC1).
C10.
C19.
W; 22A261164754F771 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene. A novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Catarrhini;
                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mattei M.-G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           There are no restrictions ong as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Repeat; Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    member of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ninomiya
                                                                                                                                                                                                                                                                                             134
134
26
120
102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bу
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the short
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ASSOCIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BASEMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REPEATING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for
              ACTCCT
                                                                                                                          ACT
                                                                                              331
                                                                                                                          126
                                                                                                                                                                                 99
                                                                                                                                                                                                            291
                                                                                                                                                                                                                                       69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            its
RRN OCC OCC PR
                                                                                                                                                                                 RESULT 10
CQT7_HUMAN
                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         рЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                           15-JUN-2002
15-JUN-2002
15-JUN-2002
                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                 Complement-clq tumor C1QTNF7 OR CTRP7.
                                                                                                                                                      CQT7_HUMAN
Q9BXJ2;
SEQUENCE FROM N.A
                         NCBI_TaxID=9606;
                                                                   Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                          804
                                                                                                                                                                                                                                                                                                                                    575
                                                                                                                                                                                                                                                                                                                                                              744
                                                                                                                                                                                                                                                                                                                                                                                         555
                                                                                                                                                                                                                                                                                                                                                                                                                    687
                                                                                                                                                                                                                                                                                                                                                                                                                                               535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              475
                                                                                                                                                                                                                                                     864
                                                                                                                                                                                                                                                                               593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 351
                                                                                                                                                                                                                                       ACTACATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCCGGATTTTCTGGTG
                                                                                                                                                                                                                                                                                                          GGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGTGGGTG
                                                                                                                                                                                                                                                                                                                                 roAlaThrTyrThrTyrAspGluTyrLysLysGlyTyrLeuAspGlnAla-----SerG
                                                                                                                                                                                                                                                                                                                                                              GACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTGCCGGGCCGCGATGGCCGCGACGCCGCGCGCGCCCGGGGGCTCCGGGAGAGAA 420
                                                                                                                                                                                                                         lnAlaAsnGlyLeuTyrSerThrGluTyrIleHisSerSerPheSerGlyPheLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCGAGGGCGGAGGCCGGGACTGCCGGGACCTCGAGGGGAC-----CCCGGGCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTCCTGCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaHisGlyPro-----ProGlyProThrGlyProLysGlyGluProGlyPheThrGly
                                                                                                                                                                                                                                                                               lyGlyAlaValLeuGlnLeuArgProAsnAspGlnValTrpValGlnIleProSerAspG
                                                                                                                                                                                                                                                                                                                                                                                         laTyrHisValHisValLysGlyThrAsnValTrpValAlaLeuTyrLysAsnAsnValP
                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGC----G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \verb"erProLeuProAlaSerGlyMetProValLysPheAspArgThrLeuTyrAsnGlyHisS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  roProGlyLeuProGlyProProGlyAlaProGlyAlaPheAspGluThrGlyIleAlaG 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sGlyGlu--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                yIleProGlyLeuGlnGlyProAlaGlyProIleGlyProGlnGlyLeuProGlyLeuLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgProGlyGlyProGlyValAlaGlyAlaLeuGlyGlnLysGly-Asp------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lnPheGlyLeuGlyGluLeuSerAlaHisAlaThrProAlaPheThrAlaValLeuThrS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lyLeuHisLeuProAsnGlyGlyValGluGlyAlaValLeuGlyLysGlyGlyLysProG 495
                                                                                  (Rel. 41, Created)
(Rel. 41, Last sequence update)
(Rel. 41, Last annotation update)
.....r necrosis factor-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----CCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGG
                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCGCGATCCGCCTTCAGCGCCAAGCGCT-----
                                        Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -CCGAGAGCCGGGTGCCT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---ProGlyLeuProGlyProProGlyGluGlyArgAlaGlyGluPr 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----LeuGlyLeuProGlyGlnProGlyLeuArgGlyProSerGl
                                        Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                    289
                                                                                                                                                                  ₽
                                                                                              protein
                                                      Euteleostomí;
                                                                                              7
                                                                                              precursor
```

555 686 535 626 574

574

557

474

527

398

384

```
Best 1
Query
DB:
                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                       νQ
                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                   밁
                                                                             δõ
                                                                                                                      В
                                                                                                                                                 õ
                                                                                                                                                                                    밁
                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                   γQ
                                                                                                                                                                                                                                                                                                                                                                                                 Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment. Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-944-944-41 (1-1377) x CQT7_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AF329839; AAK17963.1; -.
EMBL; BC022187; AAH22187.1; -.
Genew; HGNC:14342; C107NE7.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       between the Swiss Institute of Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS01113; C1Q; 1. Collagen; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PR00007; COMPLEMNTC1Q. SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ddington C.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SWISS-PROT entry is copyright. It is produced through a collaboration reen the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way fied and this statement is not removed. Usage by and for commercial
                   460
                                                                                                                                                        385
                                                                                                                                                                                                                            325
                                                                                     404
                                                                                                                                                                                                                                                                                              265
                                                   87
                                                                                                                      67
                                                                                                                                                                                        47
                                                                                                                                                                                                                                                            43
                                                                                                                                                                                                                                                                                                                              26
                                                                                                                                                                                                                                                                                                                                                                                                  14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                GGACCCCGGGCCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAG--
                                                  oLeuGlyLeuAlaGlyGluLysGlyAspGlnGlyGluThrGlyLysLysGlyProIleGl
                                                                                                                                                        CGGCCGCGACGCGCGCCC-
                                                                                                                                                                                      yAlaAsnGlySerProGlyProHisGlyArgIleGlyLeuProGlyArgAspGlyArgAs
                                                                                                                                                                                                                        CCTTCCAGGCACGCCGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGA
                                                                                                                                                                                                                                                                                           GGCCGGCTCGCCCCACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGG
                                                                                                                                                                                                                                                                                                                              GluAsnTyr
                                                                                                                                                                                                                                                                                                                                                                                             AlaSerGlyGlnProArgGlyAsnGlnLeuLysGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCATCGGGGAGCCGGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGC
                                                                                                                      pGlyArgLysGlyGluLysGlyLlysGlyThrAlaGlyLeuArgGlyLysThrGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (DEC-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38
141
289
                                                                     -GGGGCTCCGGGAGAGAAAGGCGAGGCGGGAGGCCGGGACTGCCGGGACCTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S., Sheppard P.O., Bishop P., Lasser G.W.; complement-clq tumor necrosis factor-related C-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.84e-12
417.00
46.60%
36.39%
16.42%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          139
276
30683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16
289
 :: = =
                                                                                                                                                                                                                                                                                                                           SerProArgTyrIleCysSerIleProGlyLeuProGlyPro---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₹.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
COMPLEMENT-CIQ TUMOR N
RELATED PROTEIN 7.
COLLAGEN-LIKE.
C10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A61609FF86D26946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative:
Mismatches:
Indels:
Gaps:
=
                                                                                                                                                                                                                                                          -----ProGlyPro-ProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1-289)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (See http://www.isb-sib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               databases
                                                                                                                                                                                                                                                                                                                                                             -CCTGCTGCTCCTGGGCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   107
107
30
90
67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NECROSIS FACTOR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .ch/announce/
                                                                                    459
                                                                                                                      87
                                                                                                                                                        403
                                                                                                                                                                                      67
                                                                                                                                                                                                                        384
                                                                                                                                                                                                                                                            47
                                                   107
                                                                                                                                                                                                                                                                                           324
                                                                                                                                                                                                                                                                                                                             42
RESULT CALLS OF STATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-BALB/c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CA18_MOUSE
                                                                                                                                                                                                                                            SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COL8A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         165
```

```
밁
        STRAINC-578L/GJ; TISSUE-Kidney;

X MEDLINE-21085660; PubMed-11217851;

X Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

X A Arakawa T., Hara A., Fukunishi Y., Konno H., Kasukawa T., Saito R.,

X A Alzawa K., Izawa M., Nishi K., Kyosawa H., Kondo S., Yamanaka I.,

X A Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

X Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

X Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

X Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

X Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

X Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Muragaki Y., Shiota C., Inoue M., Ooshima A., Olsen B.R., Ninomlya Y.,
"Alpha 1(VIII) collagen gene transcripts encode a short-chain collagen polypeptide and are expressed by various epithelial, endothelial and mesenchymal cells in newborn mouse tissues.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             000780; Q9D2V4;
01-NOV-1995 (Rel. 32, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eur. J. Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Collagen alpha 1(VIII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=92362626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pGluValTrpLeuGluIlePhePheThrAspGlnAsnGlyLeuPheSerAspProGlyTr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sLeuAlaIleGlyLeuValHisAsnGlyGlnTyrArgIleLysThrPheAspAlaAsnTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            elleCysAlaPheProGlyIleTyrTyrPheSerTyrAspIleThrLeuAlaAsnLysHi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sSerAlaPheSerValGlyIleThrThrSerTyr----ProGluGluArgLeuProIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----TGC---TCGGTGCCTCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rGlyAsnHisAspValAla-----SerGlySerThrValIleTyrLeuGlnProGluAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gGlyGluGlnGlyAspProGlyLeuProGlyValCysArgCysGlySerIleValLeuLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           yProGluGlyGluLysGlyGluValGlyProIleGlyProProGlyProLysGlyAspAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   207:895-902(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=1499564;
ta C., Inoue M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chordata;
Rodentia;
runo M., Aono H., Baldarelli R., Barsh G.,
Bojunga N., Carninci P., de Bonaldo M.F.,
C., Fletcher C., Fujita M., Gariboldi M.,
Hofmann M., Hume D.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chain precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
```

```
Best Local Si
Query Match:
DB:
                 덩
                                       Š
                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                 Alignment Scores: Pred. No.: Score:
                                                                                                                                                                                                      US-09-944-944-41 (1-1377) x CA18_MOUSE (1-743)
                                                                                                                                                                                                                                                                                                                                                                                                                 pfam; PE00386; C1q; 1.
Pfam; PF01391; COLINGE, 7.
PRINTS; PR01007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
Extracellular matrix; Connective
Glycoprotein; Cell adhesion; Co.
                                                                                                                                                                                                    CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWI
between
the Euro
                                                                                                                                                                                                                                                                                                                                       DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P., Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F., Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L., Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              +
                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PIR; S23779; S23779,
MGD; MGI:88463; COL8a1.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Functional annotation of a full-length mouse cDNA collection."; Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MESENCHYMAL CELLS.

PYM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.

SIMILARITY: STRONG, TO ALPHA 2 TYPES VIII AND X COLLAGENS.

SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: MAJOR COMPONENT OF THE DESCEMET'S MEMBRANE (
MEMBRANE) OF CORNEAL ENDOTHELIAL CELLS.
SUBUNIT: MAY FORM HOMOTRIMERS, OR HETEROTRIMERS IN ASS
WITH ALPHA 2(VIII) TYPE COLLAGENS.
TISSUE SPECIFICITY: HIGH LEVELS IN CALVARIUM, EYE & SK
NEWBORN MICE; ALSO IN VARIOUS EPITHELIAL, ENDOTHELIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Ew European Bioinformatics Institute. There are no restr by non-profit institutions as long as its content
                 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           X66976; CAA47387.1; -.
X66977; CAA47387.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AK018742; BAB31383.1;
           GlyValGlyLysProGlyPheProGlyProLysGlyAspArgGlyIleGlyGlyValPro
                               GGAGGAGGAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGG
                                                                                                                                                                                                    29
118
572
608
608
85
109
109
248
313
323
361
596
                                                                                                        1.57e-12
417.00
41.81%
31.49%
16.42%
                                                                                                                                                                                                                   73454
                                                                                                                                                                                                                                                                                                                                                                                                                            Connective tissue; Repeat;
                                                                                                                                                                                                      MW;
                                                                                                                                                                                               COLLAGE ALPHA (VIII) CHAIN.
COLLAGE ALPHA (VIII) CHAIN.
NONHELICAL REGION (COL1).
NONHELICAL REGION (CC1).
C1Q.
G > R (IN REF. 2).
H -> Y (IN REF. 2).
K -> KG (IN REF. 2).
P -> A (IN REF. 1).
P -> A (IN REF. 1).
P -> SR (IN REF. 1).
P -> SR (IN REF. 1).
P -> H (IN REF. 1).
P -> NE (IN REF. 1).
D -> H (IN REF. 1).
T -> P (IN REF. 2).
T -> P (IN REF. 2).
T -> NPF (IN REF. 1).
T -> P (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                     Collagen;
BY SIMILA
                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY.
                                                                                          Gaps:
                                                                                                                                                Length: Matches:
                                                                                                         Mismatches:
Indels:
                                                                                                                                    Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DESCEMET'S MEMBRANE (BASEMENT CELLS.
                                                                                                                                                                                                                                                                                                                                                                                                                Signal.
                                                                                            743
125
41
132
99
                                                                                                                                                                                                                                                                                                                                                                                                                              Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     & SKIN OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ASSOCIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a collaboration –
MBL outstation –
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   outstation
                                         81
Š
                          밁
                                              õ
                                                                             B
                                                                                                     Ş
                                                                                                                                                                                     밁
                                                                                                                                 B
                                                                                                                                                     δ
                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                    γ
                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
  877
                                                    817
                           705
                                                                                                                                  667
                                                                                                                                                                                       647
                                                                                                                                                                                                                                         627
                                                                                                                                                                                                                                                                    580
                                                                                                                                                                                                                                                                                              607
                                                                                                                                                           700
                                                                                                                                                                                                                                                                                                                                                 587
                                                                                                                                                                                                                                                                                                                                                                           536
                                                                                                                                                                                                                                                                                                                                                                                                     567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     468
                                                                                                                                                                                                                                                                                                                                                                                                                               508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  369
    CTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTAC
                          uLeuLeuArgProGlyAspGlnValPheLeuGlnMetProSerGluGlnAlaAlaGlyLe
                                                  rTyrAspGluTyrLysLysGlyPheLeuAspGlnAla----
                                                                                                                                 sCysLysGlyGlyAsnValTrpValAlaLeuPheLysAsnAsnGluProMetMetTyrTh
                                                                                                                                                           CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCC---TC
                                                                                                                                                                                     oGlnThrGlyIlePheThrCysGluValProGlyValTyrTyrPheAlaTyrHisValHi
                                                                                                                                                                                                               CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCAC
                                                                                                                                                                                                                                         oValGlyAlaProValLysPheAspLysLeuLeuTyrAsnGlyArgGlnAsnTyrAsnPr
                                                                                                                                                                                                                                                               GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGC
                                                                                                                                                                                                                                                                                                                                                                                                    oProGlyProProAlaValMetProThrProSerProGlnGlyGluTyrLeuProAspMe
                                                                                                                                                                                                                                                                                                                                                                                                                            TGCCGGGGAGTGCTCGGTGCCTCCGCGA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                      oGlyAlaLeuGlyProGlnGlyGlnProGlyLeuProGlyProProGlyProProGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCGGGCCGCGATGGCCGACGGCCGCGCGCGCCCCGGGGCTCCGGGAGAGAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyLeuProGlyLeu-ProGlyValProGlyLeuLeuGlyProLysGlyGluProGlyIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---CTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheProGlyProLysGlyGluGlyGlyValVal---GlyProGlnGlyProProGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          {\tt sGlyGlyProAlaTyrGluMetProAlaPheThrAlaGluLeuThrValProPheProPr}
                                                                                                                                                                                                                                                                                                                                                 tGlyLeuGlyIleAspGlyValLysThrProHisAlaTyrAlaGlyLysLysGlyLysH1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oGlyPheProGlyValGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPr 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGAGGGCGGGACCGGGACCTCGAGGGGACCCC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               eProGlyAspGlnGlyLeuGlnGlyProProGlyIleProGlyIleValGlyProSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProProGlyMetArgGlyLeuProGlyProIleGlyProLysGlyGluGlyGlyHisLys 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACTGGACGACAACAAGATCCCCAGCCT--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysGlyGluProGlyLeuGlnGlyPheProGlyLysProGlyPheLeuGlyGluValGly 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCCGGGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyValLeuGlyProArgGlyGluLySGlyProIleGlyAlaProGlyMetGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCGCC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·GGGCCGCGAGGAGAG------GCGGGACCCGCGGGGCCCACCGGGCC
                                                                                                                                                                                                                                                                                                                      -GGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----TGGCCGGGGAGAAGCGCGGGGGGCTGGAGCACCA 120
                                                                                                                                                                                                                                                                                                                                                                         -TCCGCCTTCAGCGCCAAGCGC---
                                                                              ||||||
|SerGlySerAlaValLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              527
                                                                              705
                                                                                                                                 687
                                                                                                                                                                                     667
                                                                                                                                                                                                               699
                                                                                                                                                                                                                                                                 639
                                                                                                                                                                                                                                                                                              627
                                                                                                                                                                                                                                                                                                                                                                                                     587
                                                                                                                                                                                                                                                                                                                                                                                                                                                     567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  487
                                                                                                                                                           756
                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                                                                                                                         556
                                                                                                                                                                                                                                                                                                                                                                                                                              535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  388
```

```
RESULT 12
CRESULT 12
CALL HI
AC CALL HI
AC P27658
AC COLBAIL
AC MARMALINI
AC TISSUEN
AC TISSU
                                                                                                                                                                           Pfam; Prol391; Collage;
Pfam; Prol391; Collage;
PrINTS; PRO0007; Collagen; 1.
ProDom; PD000007; Collagen; 1.
SMART; SM00110; C10; 1.
PROSITE; PS01113; C10; 1.
PROSITE; PS01113; C10; 1.
Connective tissue; Repeat;
                 CONFLICT
CONFLICT
                                                                                            DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: MAJOR COMPONENT OF THE DESCEMENT'S MEMBRANE MEMBRANE OF CORNEAL ENDOTHELIAL CELLS.
-!- SUBUNIT: MAY FORM HOMOTERMERS, OR HETEROTRIMERS IN F WITH ALPHA 2(VIII) TYPE COLLAGENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P27658; Q96D07;
01-AUG-1992 (Rel. 23, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Collagen alpha 1(VIII) chain precursor (Endothelial
                                                                                                                                                                                                                                                                                                  Pfam; PF00386; Clq; 1. Pfam; PF01391; Collagen; 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the El the European Bioinformatics Institute. There are no rest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Muragaki Y., Mattei M.-G., Yamaguchi N., Olsen B.R., Ninomiya Y., "The complete primary structure of the human alpha 1 (VIII) chain assignment of its gene (COLBAI) to chromosome 3."; Eur. J. Blochem. 197:615-622(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE-91231001; PubMed-2029894;
                                                                         DOMAIN
                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                          InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                     Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X57527; CAA40748.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CA18_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rissue-Lung;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THE HIGH THERMAL STABILITY OF THIS REGION. SIMILARITY: STRONG, TO ALPHA 2 TYPES VIII AND SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MISCELLANEOUS: FOUR CONSECUTIVE GLY-PRO-PRO TRIPLETS AT THE C-TERMINUS OF THE TRIPLE-HELICAL REGION. THESE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.
                                                                                                                                                                                                                                                                                                                                                                               w; HGNC: 2215; COL8A1.
120251; -.
                                                                                                                                                                                                                                                                                                                                                                                                                       S15435;
                                                                                                                                                                                                                                                                                                                                                                                                                                        BC013581; AAH13581.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :||||||
uTyrAlaGlyGlnTyrValHisSerSerPheSerGlyTyrLeuLeuTyr
   1
29
118
118
572
572
609
262
263
344
                                                                                                                                                                                                                                                                                                                                                                                                                         S15435
C1Q.
                                                                                    COLLAGEN ALL REGION (NC2).

NONHELICAL REGION (NC2).

TRIPLE-HELICAL REGION (NC1).
                                                                                                                                                    COLLAGEN ALPHA 1(VIII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                   ЖГ
in in in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               744 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (See http://www.isb-sib.ch/announce/
REF.
REF.
REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEMBRANE
                                                                                                                                                                                                         Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ×
                                                                                                              (COL1)
                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COLLAGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  collagen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ASSOCIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BASEMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     is
for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a collaboration -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRESENT
Y PROVIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ဓ္ဓ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     way
                                                                                                                          δã
                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ρ
                                             ρ
                                                                                      В
                                                                                                                                                                    밁
                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                             Б
                                                                                                                                                                                                                                                                              ğ
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-41 (1-1377) x
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local S
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPITI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                     567
                                                                                                                                                                                                                                                                                                                        527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      349 GlyIleGlyLysProGlyPheProGlyProLysGlyAspArgGlyMetGlyGlyValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCA----ACTGGAGGGTCCGGAGTAGCGAGC--
                 {\tt sAsnGlyGlyProAlaTyrGluMetProAlaPheThrAlaGluLeuThrAlaProPhePr}
                                                     GAGCCGGGTGCCT----
                                                                                      pmetGlyLeuGlyIleAspGlyValLysProProHisAlaTyrGlyAlaLysLysGlyLy
                                                                                                                                                                    oProGlyProProAlaValMetProProThrProProProGlnGlyGluTyrLeuProAs
                                                                                                                                                                                                         CACCGGGCCT----
                                                                                                                                                                                                                                             oGlyAlaLeuGlyProGlnGlyGlnProGlyLeuProGlyProProGlyProProGlyPr
                                                                                                                                                                                                                                                                                                                      oGlyPheProGlyIleGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPr
                                                                                                                                                                                                                                                                                                                                                                                             yProIleGlyProProGlyIleProGlyProLySGlyGluProGlyLeuProGlyProPr
                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGCGACGGCGCGCGCGGGGCTCCGGGAGAGAAAGGCCGAGGGCGGGAGGCCGGGACTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        eProGlyAspGlnGlyLeuGlnGlyProProGlyIleProGlyIleGlyGlyProSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGGGCCACCATGGCAGCCAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyValProGlyLeuProGlyVal-ProGlyLeuLeuGlyProLysGlyGluProGlyIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProProGlyMetArgGlyLeuProGlyProIleGlyProLysGlyGluAlaGlyGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCACTGGACGACAACAAGATCCCCAGCCT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysGlyGluProGlyLeuGlnGlyPheProGlyLysProGlyPheLeuGlyGluValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheProGlyProLysGlyGluGlyGlyIleVal---GlyProGlnGlyProProGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCCGGGA------GGGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProGlyGluProGlyLeuProGlyIleProGlyProMetGlyProProGlyAlaIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyAlaLeuGlyProArgGlyGluLysGlyProIleGlyAlaProGlyIleGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGG
                                                                                                                                                                                                                                                                                  ------GGACCTCGAGGGGACCCCGGGCCGAGGAGGCGGGACCCGGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                388
454
601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               388
454
464
601
631
73364
                                                                                                                              -GCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.84e-12
415.50
41.46%
32.16%
16.36%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --- CTGCCCGGGCACCCCGGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CA18_HUMAN (1-744)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----TGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  онжно
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REF.
REF.
REF.
REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -GGCTTGCCGGGCCGCGATGGCCGCGACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -GCCCCGAAGGAGGCCATCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CRC64;
                                                                                                                                                                                                           -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGCAC
                                                     င္ပ
```

387

467 336 427 276 447

306

120 388 168 408

216

81

561

507 447 527 527 448 448 547 498 567

```
This SWISS-PRO between the Sthe European I use by non-I
                                                                                                                                                                                                                                                                                                                                  C1QC_MOUSE STAN

Q02105;

Q1-JUL-1993 (Rel. 2

Q1-JUL-1993 (Rel. 2

16-QCT-2001 (Rel. 4
                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN-ICR; TISSUE-Macrophage;
MEDLINE-93011118; PubMed-1396691;
                                                                                                                                                                                                                  complement subcomponent Clq,
precerebellin.";
                                                                                                                                                                                                                                 Petry F., Reid K.B.M., Loos M.; "Isolation, sequence analysis and chacoding for the C chain of mouse Clq.
                                                                                                                                                                                                                                                                                                                     Complement Ciq
                                                                                                                                                                   MEDLINE=96186528; PubMed=8666057; Petry F., McClive P.J., Botto M., Morley B.J.,
                                                                                                                                                                            STRAIN-BALB/c; TISSUE-Liver; MEDLINE-96186528; PubMed-860
                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                            MOUSE
                                         SIMILARITY: SIMILARITY:
  SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Hioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                                                                 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          577
                                                                                                                                                                                                                                                                                                                                                                                                   725
                                                                                                                                                                                                            Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                         CATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                          {\tt YLeuTyrAlaGlyGlnTyrValHisSerSerPheSerGlyTyrLeuLeuTyr}
                                                                                                                                                                                                                                                                                                                                                                                                                                rThrTyrAspGluTyrLysLysGlyPheLeuAspGlnAla-.---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              lHisCysLysGlyGlyAsnValTrpValAlaLeuPheLysAsnAsnGluProValMetTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGA
                                         CONTAINS
                                                                                                                                                                                                                                                                                                                             subcomponent, C
                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                           209:129-134(1992)
                                                                                                                                                                                                                                                                                                                                    26,
40,
                                                                                                                                                                                                                                                                                              Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                    Last sequence up
                                                                                                                                                                                                                                                                                                                                                   Created)
                                         COLLAGENOUS DOMAIN.
                                                                                                                                                                                                                          collagen
                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                             chain
                                                                                                                                                                                                                         characterization of cDNA clones
lq. Sequence similarity of
agen type VIII and type X and
                                                                                                                                                                                                                                                                                                                           n precursor.
                                                                                                                                                                                                                                                                                                                                                                    246
                                                                                                                                                                                                                                                                                                      Euteleostomi;
                                                                                                                                                                                                                                                                                              Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               -SerGlySerAlaVa
                                                                                                                                                                                                                                                                                                                                                                                                                 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              813
                                                                                                                                                                                                                                                                                                                                                                                                                                                               705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          647
  Ş
                  밁
                               δ
                                                В
                                                              δÃ
                                                                               밁
                                                                                             Š
                                                                                                              밁
                                                                                                                            δõ
                                                                                                                                             밁
                                                                                                                                                           8
                                                                                                                                                                            밁
                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                       Query Match:
DB:
                                                                                                                                                                                                                                                Percent Similarity
                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                               Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                             MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Complement
                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS;
                  109
                                 518
                                                               467
                                                                                               407
                                                                                                                              347
                                                                                                                                                             296
                                                                                                                                                                                           236
                                                 89
                                                                                69
                                                                                                              49
                                                                                                                                             29
                                                                                                                                                                            15
```

8 d b

g Qy

밁 5 В Ş 밁 õ

```
US-09-944-944-41 (1-1377) x C1QC_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00386; Clq; 1. Pfam; PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X66295; CAA46993.1; -. EMBL; X92960; CAA63535.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR001073; Clq.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR; S29328; Si
MGD; MGI:88225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; PR00007; COMPLE
SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Signal.
                                                                                                                                                                                                                                                                                                                                CTCCTCGTCCTGCTGCTCCTGGGGCCTGGCGGCCCGGCTCGCCCCACTGGACGACAACAACAACAAG
GAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAAC
                                                                                                                                                                                                                             PS01113; C1Q;
                            ProGlyValGluGlyArgTyrLysGlnLysHisGlnSerValPheThrValThrArgGln
                                                                                  GlyProArgGlyThrSerGlyLeuProGlyAspProGlyProArgGlyProProGlyGlu
                                                                                                              GGGCCGCGAGGAGAGGCG-----
                                                                                                                                          ThrGlnGlyProLysGlyGlnLysGlyGluProGlyMetProGlyHisArgGlyLysAsn
                                                                                                                                                                      GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                      ATCCCCAGCCTCTGC-----
                                                        TGCTCGGTGCCTCCGCGA----
                                                                                                                                                                                                  AspGlyHisAspGlyLeuGlnGlyProLysGlyGluProGlyIleProAlaValProGly
                                                                                                                                                                                                                                                         AlaSerAlaGlyCysTyrGlyIleProGlyMetProGlyMetProGlyAlaProGlyLys
                                                                                                                                                                                                                                                                                                                  LeuLeuLeuPheLeuLeuAlaLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pathway; Plasma; Hydroxylation; Glycoprotein; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40
43
61
64
73
76
82
97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ă,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPLEMNTC10
                                                                                                                                                                                                                                                                                                                                                                                                                 3.17e-12
412.00
55.74%
42.21%
16.22%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               246
113
246
246
33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37
40
43
61
64
73
76
79
79
100
106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HYDROXYLATION HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INTERCHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COLLAGEN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPLEMENT C1Q SUBCOMPONENT, C CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2F79EA1274BCB8E0
                                                                                                                                                                                                                                                                                      -CCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                 Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                       (1-246)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
                                                                                                                -GGACCCGCGGGCCCACCGGGCCTGCCGGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (WITH OTHER
                                                                                                                                                                                                                                                                                                                 -----ProLeu---ArgSerGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . Usage by and for commercial http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78)
78)
78)
78)
78)
78)
78)
78)
78)
78)
                                                        -TCCGCCTTCAGCGCCAAGCGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
Y SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                   246
103
33
84
24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 റ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN)
619
                                                                                    108
                                                                                                                517
                                                                                                                                          88
                                                                                                                                                                      466
                                                                                                                                                                                                  83
                                                                                                                                                                                                                              406
                                                                                                                                                                                                                                                          48
                                                                                                                                                                                                                                                                                   346
                                                                                                                                                                                                                                                                                                                 28
```

```
멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δο 4
δο 4
δο 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g dy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P98085; 091080;
Ol-NOV-1995 (Rel. 32, Created)
Ol-NOV-1995 (Rel. 32, Last sequence update)
Ol-NOV-1995 (Rel. 32, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
Inner ear-specific collagen precursor (Saccular collagen).
Lepomis macrochirus (Bluegill).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Percoidei;
Centrarchidae; Lepomis.
                                                                                                                                                                                                                                                                                                                                                                             Gibson T.;
Submitted (MAR-1995) to the SWISS-PROT data bank.
-I- FUNCTION: FORMS A MICROSTRUCTURAL MATRIX WITHIN THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE-95167486; PubMed-7863331;

Davis J.G., Oberholtzer J.C., Burns F.R.,

"Molecular cloning and characterization of the structural protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LEPMA
                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                EMBL; U17431; AAA69978.1; ALT_FRAME. InterPro; IPR001073; Clq. InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CONCEPTUAL TRANSLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Science 267:1031-1034(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COLE_LEPMA
                                                                                                                                                                                                                                                      CAUTION: THIS IS A CONCEPTUAL TRANSLATION; A FRAMESHIFT INTRODUCED FOR POSITIONS 391-419 SO AS TO MAXIMIZE THE WITH OTHER SHORT-CHAIN COLLAGENS.
                                                                                                                                                                                                                                                                                                                TISSUE SPECIFICITY: SPECIALIZED SECRETORY SUPPORTING OUTER PERIMETER OF THE SACCULAR EPITHELIUM. SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: FORMS A MINEMBRANE (PROBABLY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuPheProAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AsnAspTyrAsnGlyMetValGlyIleGluGlySerAsnSerValPheSerGlyPheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerGlyGlyAlaLeuLeuArgLeuGlnArgGlyAspGluValTrp-----LeuSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrPhe---ValTyrTyrThrSerHisThrAlaAsnLeuCysValHisLeuAsnLeuAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrThrGlnTyr---ProGluAlaAsnAlaLeuValArgPheAsnSerValValThrAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Greene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      M. I.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ear-specific
                                                                                                                                                                                                                                                                                                                                                                                                 OTOLITHIC
                                                                                                                                                                                                                                                                                                                                                           CELLS
                                                                                                                                                                                                                                                                           F HAD TO BE
SIMILARITY
                                                                                                                                                                                                                                                                                                                                                           Ą
                                                                                                                                                                                                                                                                                                                                                           THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
Д
                                                δõ
                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SO SET TO                                                                                            밁
                                                                                                                                                                         밁
                                                                                                                                                                                                        δõ
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similari
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-41 (1-1377) x COLE_LEPMA (1-419)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00110; C1Q; 1. PROSITE; PS01113; C1Q; Extracellular matrix; R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.:
                                                                                                                                                                         264
                                                                                                                                                                                                                490
                                                                                                                                                                                                                                                                                               455
                                                                                                                                                                                                                                                                                                                                                                           397
                                                                                                                                                                                                                                                                                                                                                                                                                                                        337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      157
                                                                                                                                                                                                                                                    244
                                                                                                                                                                                                                                                                                                                                  224
                                                                                                                                                                                                                                                                                                                                                                                                                  204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PF01391; Collagen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyLeuProGlyAlaAsnGlyLeuAsnGlyAspIleGlyGluLysGlyAspGlnGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PR00007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGAC---
                                                                                                                                                                                                                                                                                                                                                                                                                                          lPheTyrAsnGlyGluGlyHisTrpAspProThrLeuAsnLysPheAsnValThrTyrPr
                                                     GCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCC
                                                                                                                                CAAGCGCTCCGAGAGCCGGGTGCCCCCCCTCGACGCACCCTTGCCCCTTCGACCGCGT
                                                                                                                                                                         oArgGlyProLysGlyProProGlyGluSerValGluGlnIleArgSerAlaPheSerVa
                                                                                                                                                                                                              CGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTTCGGTGCCTCCGCGATCCGCCTTCAGCGC
                                                                                                                                                                                                                                                  oGlyGlyArgGlyMetAlaGlyLeuArgGlyGluLysGlyLeuLysGlyValArgGlyPr
                                                                                                                                                                                                                                                                                                                                yGluProGlyProLeuGlyGlyLysGlyAspThrGlyAlaArgGlyProProGlyProPr
                                                                                                                                                                                                                                                                                                                                                                       CGCGCCCGGGGCTCCCGGAGAGAAAGGCGAGGCCGGGAGGCCGGGACCTGCCGGGACCT--
                                                                                                                                                                                                                                                                                                                                                                                                              oProGlyLeuArgGlyGluMetGlyLeuAsnGlyThrAspGlyValLysGlyGluArgGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysGlyGluGln-GlyLeuLysGlyGluCysLeuGlnGlyGluLysGlyGluArgGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTGGACGACAACAAGATCCCCAGCCTCTGC---CCGGGGCACCCCGGCCCTTCCAGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---GlyGluProGlyLeuAsnGlyThrLysGlySerIleGlyArgGluGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCGGGGAGCCGGGA----GGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuLysGlyAspLysGlyGluArgGlyPheSerGlyLeuLysGlyAspProGlyGluArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValGlyLeuProGlyValProGlyIleProGlyLysProGlyGluLysGlyAspProGly
                                                                                           lGlyLeuPheProSerArgSerPheProProProSerLeuProValLysPheAspLysVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------ProMetGlyProGlyLeuAlaGlyThrLysGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
20
58
275
272
37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
419
57
274
419
419
419
37
320
43634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPLEMNTC1Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.89e-12
407.00
44.38%
36.47%
16.02%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----GGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INNER EAR-SPECIFIC COLLAGEN.
NONHELICAL REGION (MC2).
TRIPLE-HELICAL REGION (COL1).
NONHELICAL REGION (MC1).
C10.
N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
MW; 570CDB9675FC0F39 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Collagen; POTENTIAL.
                                                                                                                                                                                                                                                                                             ·----CGAGGGGACCCCGGGCCGCGAGGAGAGGCGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           419
120
26
140
43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAGG
```

162

75

669

304

549

284

489

172 279 184 336 204 296 224

```
RESULT CONTROL OF THE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                      EMBL; AF329836; AAK17960.1; -.
EMBL; BC011699; AAH11699.1; -.
Genew; HCNC:14325; C1QTNP2.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; COLLagen; 2.
PRINTS; PR00007; COMPLEMNTC10.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
                         DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg R.;
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases
-!- SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN.
-!- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _HUMAN
CQT2_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Complement-old tumor necrosis factor-related
ClQTNF2 OR CTRP2.
                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
Piddington C.S., Bishop P.;
"Homo sapiens complement-c1
Submitted (DEC-2000) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FISSUE-Muscl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCGGATTTCTGGTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       eSerGlyPheLeuLeuTyrProAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pGlnAla----SerAsnLeuAlaLeuLeuHisLeuThrAspGlyAspGlnValTrpLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          uGluThr---LeuArgAspTrpAsnGly***TyrSerSerSluAspAspSerThrPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        uValValAsnGlyValArgLysLeuArgThrArgAspSerLeuTyrGlyGlnAspIleAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGAAGAATGGC---GAATCCATTGCCTCTTTCTTCCAGTTTTTCGGGGGGGTGGCCCAA
                                                                                                                                                                      Signal.
                                                                          40
                         A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                         285
29952
                                                                          141
                                                                                                                        15
285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lement-clq tumor necrosis factor-related
)) to the EMBL/GenBank/DDBJ databases.
                         W.
C1Q.
; 7E31FF9868D4EDFA
                                                                     POTENTIAL.
COMPLEMENT-C1Q TUMOR
RELATED PROTEIN 2.
COLLAGEN-LIKE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; | Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein
                         CRC64;
                                                                                                                      NECROSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         344
```

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred.
Score:
                                                                                                      밁
                                                                                                                                                       δÃ
                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                      뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-41 (1-1377) x CQT2_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local S
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No.:
                                                                                                                                                            845
                                                                                                                                                                                                                                                                                                                                                                                                                                      191
269
                                                                                                         249
                                                                                                                                                                                                                   231
                                                                                                                                                                                                                                                                         785
                                                                                                                                                                                                                                                                                                                            211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18
                                                   ACCITCTCCGGATTTCTGGTGTACTCCGAC
                                                                                                                                                    GTGCAGGTGGGTGGGTGACTACATTGGCATC---TATGCCAGCATCAAGACAGACAGC
                                                                                                                                                                                                                AspValAla-----SerGlySerThrIleLeuAlaLeuLysGlnGlyAspGluValTrp
                                                                                                                                                                                                                                                                                                                         GlyLeuValH1sAsnGlyGlnTyrArgIleArgThrPheAspAlaAsnThrGlyAsnHis
                                                                                                                                                                                                                                                                                                                                                                                GATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTCGGGGGGGTGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LysIle Leu Met AsnGluGlyGly His Tyr AsnAla Ser Ser Gly LysPhe Val CysGly LysPhe Lorentz Lys LysPhe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyLysProGlyProLysGlyLysAlaGlyAlaIleGlyArgAlaGlyProArgGlyPro 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGCACGCCGGGCCACCATGGCCAGGCCTTGCCGGGCCGCGATGGCCGCGACGGC
LeuPheThrGlyPheLeuIleTyrAlaAsp
                                                                                                      LeuGlnIlePheTyrSerGluGlnAsnGlyLeuPheTyrAspProTyrTrpThrAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                   ValProGlyIleTyrTyrPheThrTyrAspIleThrLeuAlaAsnLysHisLeuAlaIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaPheSerValAlaValThrLysSerTyrProArgGluArgLeuProIleLysPheAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysGlyValAsnGlyThrProGlyLysH1sGlyThrProGlyLysLysGlyProLysGly 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACTGCCGGGACCTCGAGGGGACCCCGGGGCCGGGGAGGAGGAGGGGGACCCGGGGGCCC 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCGACGCGCGCGCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGATCCCCAGCCTCTGC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuLeuGlyAlaPheAlaArgArgAspPheArgLySGlySerProGlnLeu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCTGGGCCTGGCGGCC----
                                                                                                                                                                                                                                                                   AAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysLysGlyGluProGlyLeuProGlyProCysSerCysGlySerGlyHisThrLysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisAspGlyAspArgGlyAspSerGlyGluGluGlyProProGlyArgThrGlyAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProGlyProSerGlyMetMetGlyArgMetGlyPheProGlyLysAspGlyGlnAspGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                - ACCGGGCCTGCCGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7.9e-12
403.00
47.04%
36.30%
15.87%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -ValCysSerLeuProGlyProGlnGlyProProGlyProProGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1-285)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCTCGCCCCCACTGGACGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            285
298
521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -CCCTTGCCCTTCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 1 1 1 1
                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                         230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    724
                                                                                                                                                                                                             248
                                                                                                                                                                                                                                                                                                                                                                                784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34
```

Search completed: June 21, 2003, 16:02:41 Job time: 38.5 secs

Alignment Scores:

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -Q=/Cgn2_1/USFTO_spoo1/US0994494/runat_13062003_145846_22773/app_query.fasta_1.1543
-DB-SPTREMBL_21 -QFMT-fastan -SUFFIX=rspt -MINMATCH-0.1 -LOOPCL-0 -LOOPEXT-0
-UNITS-bits -START=1 -END-1 -MATRIX=blosum62 -TRANS-human40.cdi -LIST-45
-DCCALIGN=200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN=15 -MODE-LOCAL
-OUTFMT-pto -NORM-ext -HEAPSIZE-500 -MINLEN-0 -MAXLEN-2000000000
-USER-US09944944 @CGN_1_1_79 @runat_13062003_145846_22773 -NCPU-6 -ICPU-3
-NO_MMAP -LARGEQUERY -NEG_SCORES-0 -MAIT -DSPBLOCK-100 -LONGLOG
-DEV_TIMEOUT-120 -WARN_TIMEOUT-30 -THREADS-1 -XGAPDD-10 -XGAPEXT=0.5 -FGAPOP-6
-FGAPEXT=7 -YGAPOP=10 -YGAPDXT=0.5 -DELOP-6 -DELEXT-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Command line parameters:
-MODEL=frame+_n2p.model -DEV=xlh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic - protein search, using frame_plus_n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             on:
                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                       Score
  1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length: 0
length: 2000000000
                                                    Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             June 21, 2003, 15:31:46; Search time 92.5 Seconds (without alignments) 6134.635 Million.cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xgapop 10.0 , Xgapext Ygapop 10.0 , Ygapext Fgapop 6.0 , Fgapext Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-944-944-41
2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPTREMBL_21:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  671580 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 gactagttctcttggagtct....
  49.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                     sp_rodent:*
sp_virus:*
sp_vertebrate:*
sp_unclassified:*
                                                                                                                                                                                                                                                                                                       sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sp_phage: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sp_organelle:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sp_mhc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sp_bacteria:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sp_archea:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sp_mammal:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sp_human:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sp_invertebrate:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sp_fungi:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sp_plant:*
243 11 Q8R002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206047115 residues
                                                         Ħ
                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        aaaaaaaaaaaaaaaa 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1343160
                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7
Q8r002 mus musculu
                       RESULIDADO 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
```

Q90y10 brachydanio Q90y10 brachydanio Q60467 cricetulus Q9w7r9 cynops pyrr	Q60467 Q9W7R9	113 113 113	2944 1352 1840 1418	11.6 11.6 11.5	294 294 293
parac mytil	Q26052 Q44367		730 922	11.6	295.5
5 mus	Q99LL6	11	589		95
Q60444 cricetulus P90679 arenicola m	Q60444 P90679	5 E	1549	11.7	297 296
5	90ZNG	4	1745	٠	(A)
oncorhy	Q910C0	13	1449	٠	36
0796	Q90796	13	888		298.5
Q9J1U3 TACCUS HOLV	093485	٦ <u>۲</u>	909 0481	11.0	۵ ₇
1717 xenopus	091717	13	1486	٠	300.5
63079 rattus n	Q63079	11	1453	12.0	(L)
ib91 xenopus	Q91B91	13	1447	12.1	306.5
090w37 gallus ga	090W37		1420	12.1	<u>د</u> د
Q14046 nomo	014046	- 4	1487	13.1	307.5
077753 canis	077753		1487	12.1	i u
Q28396	Q28396	6	1418	12.1	308
016161 mytil	016161		902	٠	308
Q62032 mus	Q62032		1459		5
Q9f2n5 stre	09F2N5	16	889	12.3	310.5
062033 mus	062033		1442		13
	082021 0M2040		1445	•	
093486 onco	093486	13	678	•	317
. 093251 rana ca	093251		1445	٠	319.5
Q63123 rattus	Q63123		1419	12.6	اس
	099184	w	1451		321.5
onco	680.160	. 13	1458	•	325
canis	Q95J95	6	194	•	
Q9d8u4 mus muscu	Q9D8U4	11	294	•	398
Q8te15 homo s	OBTEJ5	4	705		4
Ogados ilus	096007	4 T	744	16.5	415 5
Q9d2v4 mus	Q9D2V4	: ::	744	•	418
Q95jd7 macac	Q95JD7	σ	243	16.7	423
4 bos taurus	Q95MQ4	σ	240	6	425.5
9z1k4 rattus n	Q9Z1K4	11	295	16.9	429
09n178 sus scrofa	09N178	D.	7	18.0	

ALIGNMENTS

```
RESULT
Q9N178
ID Q9N178
AC QS
DT 01
DT 01
DT 01
DT 01
CS TY
CS St
OC Et
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment :
Pred. No.:
Score:
                                                                                                                                                            δδ
β
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best I
Query
DB:
                                                                                                               밁
                                                                                                                          õ
                                                                                                                                               밁
                                                                                                                                                                                              δ
                                                                                                                                                                                                                 Ъ
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                    뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                      δδ
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-41 (1-1377) x Q8R002
                                Q9N178 PRELI
Q9N178;
01-OCT-2000 (TIEM
01-OCT-2000 (TIEM
01-JUN-2002 (TIEM
TYPE X collagen.
               Type X co
COL10A1.
Sus scroi
        Sus scrofa
Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match:
                                                                                                                              947
                                                                                                                                                                                                   827
                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                   767
                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                      647
                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                       587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scores:
                                                                                                                241
                                                                                                                                                 221
                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                     707
                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                         527
                                                                                                                                                                                                                                                                                                                                                                                                                                           407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                227
                                                                                                                                                                                                                                                                                                                                                                                                         467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              287
                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                              | GTCTTTGCT 955
|||||||||
| ValPheAla 243
                                                                                                                                                                               ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                   CCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                      GGGCCGCAGGAGAGAGGCCGGACCCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MetArgProLeuLeuAlaLeuLeuLeuLeuGlyLeuValSerGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                       ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProAlaAsp
        Metazoa;
                                        0 (TrEMBLrel.
0 (TrEMBLrel.
2 (TrEMBLrel.
                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6.47e-69
1254.00
96.30%
93.42%
49.37%
         Chordata;
                                         15,
15,
21,
                                         Created)
Last sequence up
Last annotation
        Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (1-243)
                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                             675
        Vertebrata;
                                                                             B
                                                   update)
                                          update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                243
7
227
0
        Euteleostomi;
                                                                                                                                                               946
                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                240
                                                                                                                                                                                220
                                                                                                                                                                                                 886
                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                  826
                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                     766
                                                                                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                                     706
                                                                                                                                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                                                      646
                                                                                                                                                                                                                                                                                                                                                                       586
                                                                                                                                                                                                                                                                                                                                                                                                        526
                                                                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                                          466
                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              286
        Š
                       밁
                                    δÃ
                                                         B
                                                                         5
                                                                                            밁
                                                                                                        δã
                                                                                                                              밁
                                                                                                                                            δã
                                                                                                                                                               밁
                                                                                                                                                                            δĀ
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                 Ωy
                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                               γ
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-944-944-41 (1-1377) x Q9N178
                                                                                                                                                                                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in type x collagen.";

Mamm. Genome 11:1087-1092(2000).

EMBL; AF222861; AAF37271.1; -.

InterPro; IPR000007; CO11agen.

Pfam; PF01391; Collagen; 8.

PRINTS; PR00007; COMPLEMNTC1Q.

ProDom; PD000007; Collagen; 2.

SMART; SM00110; C1Q; 1.

PROSITE; PS01113; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nielsen V.H., Bendixen
Shukri N.M., Thomsen B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE-21015405; PubMed-11130976;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'Abnormal
                         435
                                                           416
                                         370
                                                                           310
                                                                                            396
                                                                                                             265
                                                                                                                               376
                                                                                                                                               211
                                                                                                                                                                356
                                                                                                                                                                                 181
                                                                                                                                                                                                                  142
                                                                                                                                                                                                                                   316
                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                     296
                                                                                                                                                                                                                                                                                      115
                                                                                                                                                                                                                                                                                                      277
                                                                                                                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                                                                      28
                                                          GGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGG------
        CGGGAGGCCGGGACTGCCG
                                                                           CCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCCACCATGGCAGCCAGGGCTTGCCGGG
                                                                                            GlyLeuAsnGlyProLysGlyAsnProGlyLeuProGlyProLysGlyAspProGlyIle
                                                                                                             GGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCT---
                                                                                                                              AlaLysGlyGluArgGlyProSerGlyLeuAspGlyLysProGlyTyrProGlyGluPro
                                                                                                                                               TCCCGGTGCCAGCGCTATGAGGCC-----
                                                                                                                                                                                GGGACTGCGAGAGGACCCCGGCGT----
                                                                                                                                                                                                 GlyLeuThrGlyProProGlySerArgGlyProGlnGlyProLysGlyIleProGlyAsn
                                                                                                                                                                                                                                                                                                     GlyLeuProGlyThrLysGlyHisProGlyAla---ProGlyMetAlaGlyProProGly
                        yHisAsnGlyGluAlaGlyProArgGlyAlaProGlyIleProGlyThrArgGlyProIl
                                         CCGCGATGGCCGCGACGGCGCGCGCGCGCGCGGGGCTCCGGGAGAAAGGCCGAGGG
                                                                                                                                                                                                                                  LeuProGlyAlaProGlyAlaLysGlyGluGlnGlyProAlaGlyHisProGlyGluPro
                                                                                                                                                                                                                                                                    AlaProGlyPheGlyLysProGlyLeuProGlyLeuLysGlyGlnArgGlyProIleGly
                                                                                                                                                                                                                                                                                     GCACCACCAACTGGAGGGTCCGGAGTA-----
                                                                                                                                                               {	t AsnGlyValProGlyProLysGlyGluIleGlyLeuAlaGlyProAlaGlyPheProGly}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       growth plate function in
                                                                                                                                                                                                                                                                                                                                                                                                                                                           675
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΑA;
                                                                                                                                                                                                                                                                                                                                                                                               3.13e-20
457.00
41.57%
30.17%
17.99%
                                                                                                                                                                                                                                                                                                                                                                                                                                                           65447 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cetartiodactyla; Suina;
                                                                                                                                                                                                                                                                                                                C., Arnbjerg
                                                                                                                                                                                                                  -GCGAGCGCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                      (1-675)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            26397B10310383F9
                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٦.,
                                                                                                                                               ACTCCTCGTCCTGCTGCTCCTGGGCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       carrying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sorensen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ø
                                                                                                                                                                                                                                                                                                                                                                                        675
127
48
119
119
127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dominant mutation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jensen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H.E.,
                                                                                                                                                                        -cceecc
                                                                                                             -CTG
```

81 276 114

141 335

```
망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          å
Võ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B 65 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0y 0g 0g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4d
80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΩÝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                  Q9Z1K4 PRELIMINARY;
Q9Z1K4;
01-MAY-1999 (TrEMBLrel. 1
01-MAY-1999 (TrEMBLrel. 1
01-JUN-2002 (TrEMBLrel. 2
Collagen alpha 1 type X (
                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata;
Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10116;
[1]
                STRAIN-SPRAGUE-DAWLEY;

MEDLINE-20310874; PubMed-10853827;

Marks S.A., Lundmark C., Christersson C., Wurtz T., Odgren

Seifert M.F., MacKay C.A., Mason-Savas A., Popoff S.E.;

Endochondral bone formation in toothless (osteopetrotic) r

failures of chondrocyte patterning and type x collagen expr

Int. J. Dev. Biol. 44:309-316(2000).

EMBL; AJ131848; CAA10518.1; -.

InterPro; IPR0010987; Collagen.
                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   455
   PF00386; Clq;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rProValMetTyrThrTyrAspGluTyrValLysGlyTyrLeuAspGlnAla-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rLysAlaTyrProAlaIleGlyAlaProIleProPheAspLysIleLeuTyrAsnGlyGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPTOGlyProLysGlyHisAlaGlyGluProGlyLeuProGlyProProGlyProProGlyProProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     aGlySerAsnGlyLeuTyrSerSerGluTyrValHisSerSerPheSerGlyPheLeuVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGACTACATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTTCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               eSerTyrHisIleHisValLysGlyThrHisAlaTrpValGlyLeuTyrLysAsnGlyTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                eValSerAlaAsnGlnGlyValThrGlyMetProValSerAlaPheThrValIleLeuSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCCGGGCCGAGGAGAGGCG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oProGlyProAlaGlyIleAlaThrLysGlyLeuAsnGlyProThrGlyProProGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||| ||||||:::|||
eGlyProProGlyIleProGlyPheProGlySerLySGlyAspProGlyAsnProGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         {\tt rGlySerAlaIleLeuAspLeuThrAspAsnAspGlnValTrpLeuGlnLeuProAsnAl}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------CCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGAACGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  yProProGlyGln---AlaValProProGluGlyPheValLysGluGlyGlnArgAlaPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10,
10,
21,
                                                                                                                                                                                                                                                                                                                       (Fragment).
                                                                                                                                                                                                                                                                                                                                    Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                Craniata; Vertebrata; | Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                              295
                                                                                                                                                                                                                                                                                                                                                                                                              ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -GGACCCGCGGGGCCCACCGG
                                                                                                                                                                                                                                                                  Euteleostomi;
                                                                                                                                                                                                                                                Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACCTCGAGGGGA
                                                                                                                                         P.R.,
                                                                                                                                                                                                                                                  Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -Se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              495
                                          δÃ
                                                                                                                 Qy
                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment :
Pred. No.:
                                                                                  В
                                                                                                                                                        밁
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                               Ωy
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local S
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-41 (1-1377) x Q9Z1K4 (1-295)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SORRER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF01391; Collagen; 3.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
NON_TER 1 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE 295 AA; 30012 MW;
                  246
                                                                                                                       721
                                                                                                                                                                                                                             186
                                                                                                                                                                                                                                                                                                   168
                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                       148
                                                                                                                                                                                                                                                                                                                                                                                                                                             128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \mathbf{u}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17
                                                                                                                                                                          CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                      CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCGTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyTyrProGlyAspProGlyLeuAsnGlyProLysGlyAsnProGly------
                                               GTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCA
                                                                                                                                                                                                                             eAspGluIleLeuTyrAsnArgGlnGlnHisTyrAspProArgSerGlyIlePheThrCy
                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCAC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCTATGAGGCCACTCCTCGTCCT-----
                  yTyrLeuAspGlnAla---
                                                                                                      GTTTGATCTGGTGAAGAATGGC---GAATCCATTGCCTCTTTCTTCCAGTTTTTCGGGGG
                                                                                                                                                        sLysIleProGlyIleTyrTyrPheSerTyrHisIleHisValLysGlyThrHisValTr
                                                                                                                                                                                                                                                                                                 aPheThrValIleLeuSerLysAlaTyr-----ProAlaValGlyAlaProIleProPh
                                                                                                                                                                                                                                                                                                                                                                   g \verb|LeuSerGlyMetProLeuValSerAlaAsnGlnGlyValThrGlyMetProValSerAland and the state of the state 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGGCCTGCCGGGGAGTGCTCGGTGCCT--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 yProArgGlyHisThrGlyGluProGlyLeuProGlyProProGlyProProGlyProPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTCGA------GGGGACCCCGGGCCGCGAGAGAGGCGGGACCCGCGGGGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGAGCCGGGAGGGGGACTGCGAGAGGACCCCGG----CGTCCGGGCTCCCGGTGCCAG
                                                                                    pValGlyLeuTyrLysAsnGlyThrProThrMetTyrThrTyrAspGluTyrSerLysGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAG -----AAAGGCGAGGGCGGGAGGCCGGGACTGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oProGlyIleProGlyPheProGlySerLysGlyAspProGlyLysProGlyAlaProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nGlyGluAlaGlyProArgGlyGluProGlyIleProGlyThrArgGlyProIleGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgGlyLeuValGlyProThrGly------ProLysGlyVal-ProGlyHisAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----LeuProGlyProLysGlyAspProGlyValGlyGlyAlaProGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.58e-18
429.00
46.93%
35.60%
16.89%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---SerGlySerAlaIleMetGluLeuThrGluAsnAspGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FF43B1548028813E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                      -----GCTGCTCCTGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  295
110
35
91
73
```

777

720

186 660 206 168

```
Ź<sub>Š</sub>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Si
Query Match:
DB:
                                                    В
                                                                                                                 밁
                                                                                                                                               S
                                                                                                                                                                                   멍
                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores: Pred. No.: Score:
                                                                                Š
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-944-944-41 (1-1377) x Q95MQ4 (1-240)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       O95MQ4 PRELIMINARY; PRT; 240 AA.
O95MQ4;
O1-DEC-2001 (TrEMBLrel. 19, Created)
O1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
O1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Adipose tissue-specific protein adipo Q.
Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE-21369933;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID-9913;
                                                                                  506
                                                                                                                                                      464
                                                                                                                                                                                                                     413
                                                                                                                                                                                                                                                                                       353
                                                                                                                                                                                                                                                                                                                                                        299
                                                                                                                                                                                                                                                                                                                                                                                                                          242
                                                  98
                                                                                                                   78
                                                                                                                                                                                     58
                                                                                                                                                                                                                                                        47
                                                                                                                                                                                                                                                                                                                        27
                 CGGGTGCCTCCGCCGTCTGACGCACCCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAG
                                                                                                              ValGlyMetThrGlyAlaGluGlyProArgGlyPheProGlyThrProGlyArgLysGly
                                                                                                                                                                                   GGAGAGAAAGGCCGAGGCCGGGACCGGGACCTCGAGGGGAC-----
                                                                                                                                                                                                                                                                                                                                        CCC---AGCCTCTGCCCGGGG---CACCCCGGCCTTCCCAGGCACGGCGGCCACCATGGC
                                                                                                                                                                                                                                                                                                                                                                                     LeuLeuLeuLeuAlaLeuProSerHisGlyGluAspAsnMetGluAspProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                        GTCCTGCTGCTGGGCCTGGCGGCCC----GGCTCGCCCCCACTGGACGACAACAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTGCCGGGGAGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCC
                                                                                                                                                                                                                                                                                       GluProGlyGluAlaAlaTyrValTyrArgSerAlaPheSerVal---GlyLeuGluThr
                                                                                                                                                                                                                                                                                                                     ProLysGlyAlaCysAlaGlyTrpMetAlaGlyIleProGlyHisProGlyHisAsnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTGTGGGTGCAGGTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nValTrpLeuGlnLeuProAsnAlaGluSerAsnGlyLeuTyrSerSerGluTyrValHi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2.57e-18
425.50
56.02%
41.49%
16.75%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PubMed=11382781;
                                                                                                                                                    ------CCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGG
                                                                                                                                                                                                                                                      -ProGlyArgAspGlyArgAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:.
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
100
35
81
25
                                                                                                                                                                                                                                                      -GlyThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of
                                                                                                                   97
                                                                                                                                                  505
                                                                                                                                                                                   77
                                                                                                                                                                                                                     463
                                                                                                                                                                                                                                                      57
                                                                                                                                                                                                                                                                                       412
                                                                                                                                                                                                                                                                                                                     46
                                                                                                                                                                                                                                                                                                                                                      352
                                                                                                                                                                                                                                                                                                                                                                                         26
                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                    RESULT DESCRIPTION OF THE PROPERTY OF THE PROP
                                                                                                                                                                                   Pred.
Score:
                                             Q
               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                US-09-944-944-41 (1-1377)
                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q95JD7
Q95JD7;
                                                                                                                                                                                                     No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  117
               GlnAspThrThrGlnGlyProGly---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                235
```

```
"Circulating concentrations of the adipocyte protein adiponectin adecreased in parallel with reduced insulin sensitivity during the progression to type 2 diabetes in rhesus monkeys."; Diabetes 50:1126-1133(2001).

EMBL; AF404407; AAK92202.1; -.
InterPro; IPR000007; Cdq.
InterPro; IPR000007; Collagen.
Pfam; PF00386; Clq; 1.
ProDom; PF00386; Clq; 1.
ProDom; PF01391; Collagen; 1.
PROSITE; PS01113; ClQ; UNKNOWN_1.
PROSITE; PS01113; ClQ; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalla; Eutheria; Primates; Catarrhini; Cercopithe Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-2001 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-ADIPOSE TISSUE;
MEDLINE-21232234; PubMed-11334417;
Hotta K., Funahashi T., Bodkin N.L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hansen B.C., Matsuzawa Y.;
191 GAGGACCCCGGCGTCCCGGGTGCCAGCGCTATGAGGCCACTCCTCGTCCTGCTG 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ::: |||:::||||||||
AsnHisAsnGlyValTyrAlaAspAsnValAsnAspSerThrPheThrGlyPheLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---TACATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGGCCATGGTGAGGCTGAGGACCCAAGTGTGGGTGCAGGTGGGGTGTGGGTGAC 865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAA 745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnHisTyrAspGlySerThrGlyLysPheTyrCysAsnIleProGlyLeuTyrTyrPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerValLeuLeuHisLeuGluValGlyAspGlnValTrpLeuGlnValTyrGluGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaValLeuPheThrTyrAspGlnTyrGlnGlu---LysAsnValAspGlnAlaSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SerTyrHisIleThrValTyrMetLysAspValLysValSerLeuPheLysLysAspLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                         3.65e-18
423.00
52.33%
40.31%
                                   ×
                                     Q95JD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19,
19,
21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bodkin N.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
Last sequ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last annotation update)
                                   (1-243)
                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ortmeyer H.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cercopithecidae;
                                                                          243
104
31
79
44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   135
```

```
RESULT RESULT ID PROBULT OF CONTROL OF CONTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40
40
40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                  O9D2V4 FALL.
O9D2V4;
O9D2V4;
O1-JUN-2001 (TrEMBLrel. 17)
O1-JUN-2001 (TrEMBLrel. 17)
r O1-JUN-2001 (TrEMBLrel. 17)
r O1-JUN-2001 (TrEMBLrel. 17)
SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-KIDNEY;
MEDLINE-2108560; PubMed=11217851;
MEDLINE-2108560; PubMed=11217851;
MEDLINE-2108560; PubMed=11217851;
MENDLINE-2108560; PubMed=11217851;
MEN
                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5<u>4</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTG----GGTGTGGGTGACTACATTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluGlyProArgGlyPheProGlyIleGlnGlyArgLysGlyGluProGlyGluGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGGGGCACCCCGGGCTTCCAGGCACGACGACCATGGCAGCCAGGGCTTGCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCTGGGCCTGGCCGGCTCGCCCCACTGGACGACAACAAGATCCCCAGCCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \texttt{LeuGluValGlyAspGlnValTrpLeuGlnValTyrGlyGluGlyGluArgAsnGlyLeu}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspGlnTyrGlnGluAsnAsnValAspGlnAla----SerGlySerValLeuLeuHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TyrMetLysAspValLysValSerLeuPheLysLysAspLysAlaMetLeuPheThrTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCC---ATTGCCTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCATGCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AsnMetProIleArgPheThrLysIlePheTyrAsnGlnGlnAsnHisTyrAspGlySer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrValTyrArgSerAlaPheSerVal---GlyLeuGluThrTyrValThrValPro---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCGGGCCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyAspProGlyLeuIleGlyProLysGlyAspThrGlyGluThrGlyValThrGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgAspGlyArgAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCGATGGCCGCGACGGCGCGCACGGCGCGCGCGGGGCTCCGGGAGAGAAAGGCGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ThrGly-----TrpMetAlaGlyIleProGlyHisProGlyHisAsnGlyValProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuLeuProLeuProLysGlyAla-----
                                                                                                                                                                                                                                                                                                                                                                                                                           . 17, Created)
. 17, Last sequence upo
. 17, Last annotation upo
. alpha 1.
                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----GlyThrProGlyGluLysGlyGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               update)
                                                                                                                                                                                                                                                                                                                     Euteleostomi;
; Murinae; Mus
                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -cys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                          밁
                                                                                                                                                    δÃ
                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                     뫄
                                                                                                                                                                                                                                                                                                                                                                 Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-41 (1-1377) x Q9D2V4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 7.
Prints; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
SEQUENCE 744 AA; 73581 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T., Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G., Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F., Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M., Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P., Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N., Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F., Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L., Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S., Hasegaha Y., Kawashizaki Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nature 409:685-690(2001).
EMBL; AK018742; BAB31383.1; -.
MGD; MGI:88463; Col8a1.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Functional annotation of a full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                             449
                                                         466
                                                                                                                                                              424
                                                                                                                                                                                                                                                                                                                        469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22
  oGlyPheProGlyValGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPr 548
                                                                                                                                                                                                                                                                                                                     GlyLeuProGlyLeu-ProGlyValProGlyLeuLeuGlyProLysGlyGluProGlyIl
                                                                                                          yProIleGlyProProGlyIleProGlyProLysGlyGluProGlyLeuProGlyProPr
                                                                                                                                                            CGAGGGCGGAGGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                             eProGlyAspGlnGlyLeuGlnGlyProProGlyIleProGlyIleValGlyProSerGl
                                                                                                                                                                                                                                                                 ---CTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCCACCATGGCAGCCAGGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                        ProProGlyMetArgGlyLeuProGlyProIleGlyProLysGlyGluGlyGlyHisLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCACTGGACGACAACAAGATCCCCAGCCT--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysGlyGluProGlyLeuGlnGlyPheProGlyLysProGlyPheLeuGlyGluValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PheProGlyProLysGlyGluGlyGlyValVal---GlyProGlnGlyProProGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCCGGGA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGlyGluProGlyLeuProGlyIleProGlyProMetGlyProProGlyAlaIleGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCA----ACTGGAGGGTCCGGAGTAGCGAGC-----GCCCCGAAGGAGGCCATCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyValLeuGlyProArgGlyGluLySGlyProIleGlyAlaProGlyMetGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyValGlyLysProGlyPheProGlyProLysGlyAspArgGlyIleGlyGlyValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGGAGGAAAGCCGGAGCCGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7.56e-18
418.00
41.31%
31.23%
16.46%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -GGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1-744)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----TGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C659BDCCBCD6EB9C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     744
124
40
134
99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       collection.";
```

488 363 468

423

466

448

276 428 409 168 389 120

216

Arigiment Scores: 7.56e-18 Length: 744 Pred. No.: 7.56e-18 Length: 744 Score: 7.56e-18 Length: 744 Percent Similarity: 41.31% Conservative: 40 Best Local Similarity: 31.23% Mismatches: 134	SEQUENCE	Pfam; PF01391; Collagen; 7. PROSITE; PS01113; C10; UNKNOWN_1.	InterPro: IPR000087; Collagen. Pfam; PF00386; C1q; 1.	EMBL; BCULIUGI; AAHILUGI.I; ". MGD; MGI:B8463; CO1Ba1. InterPro; IPR001073; C1g.	sperg k.; tted (JUL-2001) to the	SEQUENCE FROM N.A.	Eutheria; Rodentia; Sciurognathi; Muridae; =10090;		(Tremblie (Tremblie type VII	19, Created)	ID 092158 PRELIMINARY; PRT; 744 AA.		877 CTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTAC 925	: ::::: ::: uLeuLeuArgProGlyAspGlnValPheLeuGlnMetProSerGluGlnAlaAlaGlyLe 72	817 GAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTG	757 TTTCTTCCAGTTTTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGG	68 sCysLysGlyGlyAsnValTrpValAlaLeuPheLysAsnAsnGluProMetMetTyrTh 68	048 OGINTRIGIYILERNETRICYSGLUVALFIOGLYVALTYYTTYTRREALATYYTHISVALHI 068	40 CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCAC 69	628 oValGlyAlaProValLysPheAspLysLeuLeuTyrAsnGlyArgGlnAsnTyrAsnPr 648	GCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTAC	557	88 tGlyLeuGlyIleAspGlyValLysProProHisAlaTyrAlaGlyLysLysGlyLysHi 60	530 556	568 oProGlyProProAlaValMetProThrProSerProGlnGlyGluTyrLeuProAspMe 588	517 GTGCTCGGTGCCT 529	548 oGlyAlaLeuGlyProGlnGlyGlnProGlyLeuProGlyProProGlyProProGlyPr 568	-
QY 700 CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAAATGGCGAATCCATTGCCTC 756 Db . 668 sCyslysGlyGlyAsnValTrpValAlaLeuPheLysAsnAsnGluProMetMetTyrTh 688	QY 640 CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTACTACCGTCCATGCCAC 699 :::	628 oValGlyAlabroValLysPheAspLysLeuLeuTyrAsnGlyArgGlnAsnTyrAsnPr	QY 580 GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGAACGAGCAGGAGCAGTACGACGC 639	Db 608 sGlyGlyProAlaTyrGluMetProAlaPheThrAlaGluLeuThrValProPheProPr 628	Qy 557CCGCC 579	Db 588 tGlyLeuGlyIleAspGlyValLysProProHisAlaTyrAlaGlyLysLysGlyLysHi 608	530	QY 51/ GTGCTCGGTGCT: 529 568 oProGlyProProAlaValMetProThrProSerProGlnGlyGluTyrLeuProAspMe 588	548 oGlyAlaLeuGlyProGlnGlyGlnProGlyLeuProGlyProProGlyProProGlyPr	QY 467GGGCCGCGAGGAGAGGCCGGGGACCCGCGGGGCCCTGCCGGGGA 516	Qy 466 400 Db 528 oGlypheProGlyValGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPr 548	508 yProlleGlyProProGlyIleProGlyProLysGlyGluProGlyLeuProGlyProPr	QY 424 CGAGGGCGGGAGGCGGGGACCTCGAGGGGACCCC 466	488	QY 364 GCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCGCGCGC	Oy 307CTGCCCGGGGCACCCCGGCCTTCCAGGCACCCAGGGCCACCATGGCCAGGCCTT 363	ProProGlyMetArgGlyLeuProGlyProIleGlyProLysGlyGluGlyGlyHisLys	Ov 277 CCCACGAGAGAAGAAGATCCCACGCT	217		QY 169 GAGCCGGGA	Qy .121 CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGG 168			Db 350 GlyValGlyLysProGlyPheProGlyProLysGlyAspArgGlyIleGlyGlyValPro 369	QY 22 GGAGGAGGAACCGGAGCGAGGGAACCGAGGGACTGGGGTGACGGCAGGGCAGGG 81	US-09-944-944-41 (1-1377) x Q921S8 (1-744)	

```
QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L7
29850L
                                                                                                                                                                  δÃ
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
40
40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                 δã
                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-944-944-41 (1-1377) x Q96D07 (1-744)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q96D07 PRELIMINARY; PRT; 744 AA.
Q96D07;
Q96D07;
O1-DEC-2001 (TrEMBLrel. 19, Created)
O1-DEC-2001 (TrEMBLrel. 21, Last sequence upda:
O1-JUN-2002 (TrEMBLrel. 21, Last annotation up)
Hypothetical 73.4 kDa protein.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Verteb
Mammalla; Eutheria; Primates; Catarrhini; Homi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC013581; AAH13581.1; .
InterPro; IPR001073; C1q.
InterPro; IPR001087; C011agen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; C011agen; 7.
ProDom; PF001097; C011agen; 2.
PROSITE; PS01113; C1Q; UNKNOWN_1.
C011agen; Hypothetical protein.
SEQUENCE 744 AA; 73364 MW; 2BC1B0955DE2C9A3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  œ
                                                                                                                                                                                                                            409
                                                                                                                                                                                                                                                                                                                               389
                                                                                                                                                                                                                                                                                                                                                                                                                               369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             889
                                448
                                                                              277
                                                                                                                              428
                                                                                                                                                                            217
                                                                                                                                                                                                                                                                            169
                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGCC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyIleGlyLysProGlyPheProGlyProLysGlyAspArgGlyMetGlyGlyValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysGlyGluProGlyLeuGlnGlyPheProGlyLysProGlyPheLeuGlyGluValGly
                                                                                                                                                                                                                       ||||||
PheProGlyProLysGlyGluGlyGlyIleVal---GlyProGlnGlyProProGlyPro
                                                                                                                                                                                                                                                                               GAGCCGGGA-----
                                                                                                                                                                                                                                                                                                                          ProGlyGluProGlyLeuProGlyIleProGlyProMetGlyProProGlyAlaIleGly
                                                                                                                                                                                                                                                                                                                                                                          CCA-----ACTGGAGGGTCCGGAGTAGCGAGC-----GCCCCGAAGGAGGCCATCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                       GlyAlaLeuGlyProArgGlyGluLysGlyProIleGlyAlaProGlyIleGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProProGlyMetArgGlyLeuProGlyProIleGlyProLysGlyGluAlaGlyGlnLys
                                                                           CCCACTGGACGACAACAAGATCCCCAGCCT----
                                                                                                                                                                            uLeuLeuArgProGlyAspGlnValPheLeuGlnMetProSerGluGlnAlaAlaGlyLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rTyrAspGluTyrLysLysGlyPheLeuAspGlnAla-----SerGlySerAlaValLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.07e-17
415.50
41.46%
32.16%
16.36%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                         GGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --TGGCCGGGGAGAAGCGCGGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        744
128
37
133
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             925
                                                                                                                            447
                                                                                                                                                                         276
                                                                                                                                                                                                                                                                       216
                                                                                                                                                                                                                                                                                                                            408
                                                                                                                                                                                                                                                                                                                                                                            168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             876
                                                                           306
                                                                                                                                                                                                                            427
                                                                                                                                                                                                                                                                                                                                                                                                                            388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           706
RESULT QRIEJS
ID ZOS
ID ZOS
AC QR
AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                        Q8TEJ5;
01-JUN-2002 (TrEMBLrel. 21, C
01-JUN-2002 (TrEMBLrel. 21, I
01-JUN-2002 (TrEMBLrel. 21, I
FLJ00201 protein (Fragment).
     Jikuya H.,
                           SEQUENCE FROM N.A.
TISSUE-SPLEEN;
                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                   Q8TEJ5
                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                            Homo sapiens (Human).
                                                                                                                                                                                                     FLJ00201
                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             448
                                                                                                                                                                                                                                                                                                                                                                                                                                                   725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487
                                                                                                                                                                                                                                                                                                                                                                                                                                              |-:::||||||
| JeuTyrAlaGlyGlnTyrValHisSerSerPheSerGlyTyrLeuLeuTyr 742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lLeuLeuLeuArgProGlyAspArgValPheLeuGlnMetProSerGluGlnAlaAlaGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTGAGGCTGGAGCACCAAGTGTGGGTGCAGGTGGGGTGTGGGTGACTACATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rThrTyrAspGluTyrLysLysGlyPheLeuAspGlnAla-----SerGlySerAlaVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lHisCysLysGlyGlyAsnValTrpValAlaLeuPheLysAsnAsnGluProValMetTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sAsnGlyGlyProAlaTyrGluMetProAlaPheThrAlaGluLeuThrAlaProPhePr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCCGGGTGCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pMetGlyLeuGlyIleAspGlyValLysProProHisAlaTyrGlyAlaLysLysGlyLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------GCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oProGlyProProAlaValMetProProThrProProProGlnGlyGluTyrLeuProAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACCGGGCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oGlyPheProGlyIleGlyLysProGlyValAlaGlyLeuHisGlyProProGlyLysPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          yProIleGlyProProGlyIleProGlyProLysGlyGluProGlyLeuProGlyProPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      eProGlyAspGlnGlyLeuGlnGlyProProGlyIleProGlyIleGlyGlyProSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGGGCCACCATGGCAGCCAG------GGCTTGCCGGGCCGCGATGGCCGCGACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyValProGlyLeuProGlyVal-ProGlyLeuLeuGlyProLysGlyGluProGlyIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Takano
                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
  J.,
                                                                                                                            Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCCCGGGGCACCCCGGCCTT
     Nomura
                                                                                                                                                                                                                                                Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                   Created)
Ν.,
                                                                                                                            Craniata; Ve
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                   PRT;
  Kikuno
                                                                                                                                                                                                                                                                                                                                                   705
₽.,
                                                                                                                            Vertebrata; Euteleostomi;
i; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                   ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    )
33-----
                                                                                                                                                                                                                                                update)
  Nagase
     ₽.,
     Ohara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . . . . . . . . . . . . .
     0:,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGGCAC
```

813

705

636

576 627

647 696 667

754

607

587 561 498 567

508

448 547 527

848 660

```
Best Local Si
Query Match:
DB:
                             밁
                                                                  Š
                                                                                                                밁
                                                                                                                                                   Ş
                                                                                                                                                                                                        В
                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                   ν
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment Scores: Pred. No.: Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-944-944-41 (1-1377) x Q8TEJ5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (JAN-2002) to the EMBL; AK074129; BAB84955.1; NON_TER 1 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "The nucleotide sequence of a long spleen.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                   583
                                                                                                                                                                                                                                                                                             543
                                                                                                                                                                                                                                                                                                                                           489
                                                                                                                                                                                                                                                                                                                                                                                                                                429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity:
                                                                                                                                       euTyrAsnGlyH1sSerGlyTyrAsnProAlaThrGlyIlePheThrCysProValGlyG
                                                                                                                                                                                                                                                                                                                                           ccccccc---
                                                                                                                                                                                                                                                                                                                                                                                                                            GCGGGAGGCCGGGACTGCCGGGACCTCGAGGGACCCCCGGGCCGAGGAGAGGCGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGCCAGCGCTATGAGGCC-----ACTCCTCGTCCTGCTGCTCCTGGGCCCTGGCGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          aGlyLeuProGlyArgArgGlyProProGlyProLysGlyGluAlaGlyProGlyGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        roGlyProProGlyProProGlyProProGlyAlaProGlyAlaPheAspGluThrGlyI 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGCGATGGCCGCGACGGCGCGCGCGCGCGCGCGCGCTCCGGGAGAAAAGGCCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YIleProGlyLeuGlnGlyProAlaGlyProIleGlyProGln-GlyLeuProGlyLeu-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       aLeuGlyGlnLysGlyAspLeuGlyLeuProGlyGlnProGlyLeuArgGlyProSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGCCATCGGGGAGCCGGGGGAGGGGGGCTCCCGGGGGTCCGGGCTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oProGlyValProGlyIleArgGlyAspGlnGlyProSerGlyLeuAlaGlyLysPro--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluProGlyGluGlnGlyProGlnGlyLeuGlyGlyProProGlyLeu-ProGlySerAl
                                                                       TGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTG
                                                                                                                                                                                                        ysProGlnPheGlyLeuGlyGluLeuSerAlaHisAlaThrProAlaPheThrAlaValL
                                                                                                                                                                                                                                                                                           leAlaGlyLeuHisLeuProAsnGlyGlyValGluGlyAlaValLeuGlyLysGlyGlyL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lyThrAlaGlyProThrGlyProProGlyValProGlySerProGlyIleThrGlyProP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --LysGlyGluProGlyLeuProGlyProProGly---GluGlyArgAlaGlyGluProG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rGlyProLysGlyGluProGlyPheThrGlyArgProGlyGlyProGlyValAlaGlyAl 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -GlyValProGlyGluArgGlyLeuProGlyAlaHisGlyPro-----ProGlyProTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----GACGGCAGGGCAGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             705 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.32e-17
414.00
43.178
35.798
16.308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the
                                                                                                                                                                                                                                                                                                                                       -CCCACCGGGCCTGCC--
                                                                                                            \textbf{-ProPheProAlaSerGlyMetProValLysPheAspArgThrL}
                                                                                                                                                                                                                                                 -GGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Œ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (1-705)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----ACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07DB85A65A948ED3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --GCCCCCACTGGACGACAACAAGATCCCCAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA clone isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human
                                                                       671
                                                                                                                                                          119
                                                                                                                                                                                                                                                                                           563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155
                                                                                                                                                                                                                                                                                                                                       511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                   RESULT
Q9D8ULT
ID Q9D8ULT
AC Q9D8ULT
D1 D1 D1 D1 D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
D1 O1
                                                                  Alignment :
Pred. No.:
Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                RP SEQUENCE FROM N.A.

RC STRAIN-C57BL/61; TISSUE-PANCREAS;

RX MEDLINE-2108560; PubMed=11217851;

RX MEDLINE-2108560; PubMed=11217851;

RA Arakawa T., Hara A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,

RA Arakawa T., Hara A., Fukunishi Y., Konno H., Kasukawa T., Saito R.,

RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kasukawa T., Saito R.,

RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Sakai K., Okido T., Fruuno M., Aono H., Baldarelli R., Barsh G.,

RA Bayasha H., Sato K., Schoenbach C., Seya T., Sakamoto N.,

RA Mordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,

RA Mordone P., Ring B., Ringwald M., Hasegawa Y., Kawaji H., Kohtsuki S.,

RA Mayushaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                            InterPro; IPRO01073; C1q.
InterPro; IPRO00087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 2.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9D8U4;
01-JUN-2001 (TrEMBLrel.
01-JUN-2001 (TrEMBLrel.
01-JUN-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                       Nature 409:685-690(2001).
EMBL; AK007683; BAB25187.1;
                                                                                                                                                                                                                                                                                                                                                                                                       Wynshaw-Boris
Hayashizaki Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9D8U4
                                                                                                                                                                                                                                                                                                           MGD; MGI:1916433;
                                                                                                                                                                                                                                                                                                                                                                              "Functional annotation of a full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  L810033K05RIK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 CCGGATTTCTGGTG
||||||||||:::
8 erGlyPheLeuLeu
                                                                                                                                   PS01113; C1Q; 1.
294 AA; 30865 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGG
||||||||||||||||
1yvalTyrTyrPheAlaTyrHisValHisValLysGlyThrAsnValTrpValAlaLeuT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAGCAGCACCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      yrLysAsnAsnValProAlaThrTyrThrTyrAspGluTyrLysLysGlyTyrLeuAspG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lnMetProSerAspGlnAlaAsnGlyLeuTyrSerThrGluTyrIleHisSerSerPheS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein.
                                                                                                                                                                                                                                                                                                                1810033K05Rik
  1.23e-16
398.00
47.08%
35.77%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17,
17,
17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; E
Sciurognathi; Muridae;
                                                                                                                                       6D3905AE7C19E6FA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence update)
                                           Length:
Matches:
    Conservative: Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   294
                                                                                                                                                                                                                                                                                                                                                                                  mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         update)
                                                                                                                                                                                                                                                                                                                                                                                cDNA collection.";
    98
95
95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
; Murinae; Mus
```

```
RESULT
CO95J95
ID CO95J95
AC CO95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
DB:
                                                                                                                                                                                                                              P Qy
                                                                                                                                                                                                                                                                                    Qy
db
                                                                                                                                                                                                                                                                                                                                                         д
22
                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ОĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DP QA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-41 (1-1377) x Q9D8U4
                                                                                     Q95J95 PRELIMINARY;
Q95J95;
01-DEC-2001 (TIEMBLITE1. 1
01-DEC-2001 (TIEMBLITE1. 1
01-JUN-2002 (TIEMBLITE1. 2
Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae;
                                                         APM1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match:
                                                                                                                                                                                                                                                                                                   254
                                                                                                                                                                                                                                                                                                                                     833
                                                                                                                                                                                                                                                                                                                                                                      236
                                                                                                                                                                                                                                                                                                                                                                                                          773
                                                                                                                                                                                                                                                                                                                                                                                                                                           216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29
                                                                                                                                                                                                                            GlyGlnAspGlyAspArgGlyAspSerGlyGluGluGlyProProGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCAAGTGTGGGTGGGGTGTGGGTGACTACATTGGCATC---TATGCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                    ThrGlyAsnHisAspValAla----SerGlySerThrIleLeuAlaLeuLysGluGly
                                                                                                                                                                                                                                                                                                                                                                                                                                       {\tt HisLeuAlaIleGlyLeuValHisAsnGlyGlnTyrArgIleArgThrPheAspAlaAsn}
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCATGCCACCGTCTACCGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               {\tt ProProGlyAlaProGlySerSerGlyValValGlyArgMetGlyPheProGlyLysAsp}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCTGGCGGCCCGCCCCCCCCGGGACGACAAGATCCCCAGCCTCTGCCCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGCCAGCGCTATGAGG---
                                                                                                                                                                                                                                                                                               |||:::|||||:::|||:::
| AspGluValTrpLeuGlnIlePheTyrSerGluGlnAsnGlyLeuPheTyrAspProTyr
                                                                                                                                                                                                                                                                                                                                                                                                     GGGGGGTGGCCCAAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PheValCysSerValProGlyIleTyrTyrPheThrTyrAspIleThrLeuAlaAsnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                {\tt ArgAlaLysSerAlaPheSerValAlaValThrLysSerTyrProArgGluArgLeuPro}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyProLysGlyLysLysGlyGluProGlyLeuProGlyProCysSerCysGlySerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProArgGlyProLysGlyValSerGlyThrProGlyLysHisGlyThrProGlyLysLys 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCGCGGGGCCC----ACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrGlyAsnArgGlyLysGlnGlyProLysGlyLysAlaGlyAlaIleGlyArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCG------GGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGGCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCCGCGACGGCGACGGCGCGCGCGCGCGGGGAGAGAAAGGCGAGGGCGGGAGG
                                                                        (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       678
                                                                                        19,
19,
21,
                                                                                        Created)
Last sequence Last anno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (1-294)
                                                                                        sequence update) annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels:
Gaps:
                                                                                                                                                         ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -ProGlnGlyProProGly
                                                                                                                                                                                                                                                                931
       Canis
                     Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         င္ပင္ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                487
                                                                                                                                                                                                                                                                                                   273
                                                                                                                                                                                                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           55
                                                                                                                                                                                                                                                                                                                                   889
                                                                                                                                                                                                                                                                                                                                                                      253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity:
Query Match:
DB:
                                               20
                                                                                                                     QY
                                                                                                                                                                                    QΨ
                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                             Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-41 (1-1377) x Q95J95 (1-194)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (SEP-2001) to the EMBI EMBL; haf417206; haL09702.1; -. InterPro; IPR001073; C1q. InterPro; IPR001073; Collagen. Pfam; PP00386; C1q; 1. Pfam; PF00391; Collagen; 1. ProDom; PD000007; Collagen; 1. PROSITE; PS011113; C1Q; UNKNOWN_1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-ADIPOSE TISSUE;
Kabir M., Ananthnarayan S., Ionut V.,
Dea M.K., Bergman R.N.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Regulation of Adiponectin gene expression in Submitted (SEP-2001) to the EMBI/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Мо
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9615,
[1]
                                                                                                                                                                                            869
                                                                                                                                                                                                                                                                                                                                   578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      308
                                                                                                                                                         142
                                                                                                                                                                                                                              122
                                                                                                                                                                                                                                                                                                   103
                                                                                                                                                                                                                                                                                                                                                                                                      518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         248
                                                                                                                                                                                                                                                                                                                                                                    84
                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 ValLeuProLeuProLysGlyAla-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCCCGGGG----CACCCCGGCCTTCCAGGCACGCCCGGGCCACCATGGCAGCCATGGCAGCCTTG
                   CCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGAC
                                                                                                                                                                                                                                                                                                                                                                                      GlyValGluGlyProArgGlyPheProGlyThrProGlyArgLySGlyGluProGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCCAGCCTC
                                                      GTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTG
                                                                                                                                                                                            ACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCT
                                                                                                                                                                                                                            GlyThrThrGlyLysPheHisCysAsnIleProGlyLeuTyrTyrPheSerTyrHisIle
                                                                                                                                                                                                                                             GCCGTCACCGGCAAGTTCACCTGCCAGGGGGCTGCGGGGGTCTACTTCGCCGTCCATGCC
                                                                                                                                                                                                                                                                                             Pro---AsnValProIleArgPheThrLysIlePheTyrAsnLeuGlnAsnHisTyrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CysProGlyTrpMetAlaGlyIleProGlyHisProGlyHisAsnGlyThr-----
                                                                                                                       TTCTTCCAGTTTTTCGGGGGGGGGGCCCAAGCCAGCC---TCGCTCTCGGGGGGGGGCCATG
                                                                                                                                                         ThrValTyrLeuLysAspValLysValSerLeuTyrLysLysAspLys-----AlaMet
                                                                                                                                                                                                                                                                                                                                                                    SerAlaTyrValHisArgSerAlaPheSerVal---GlyLeuGluSerArgIleThrVal
                                                                                      LeuPheThrTyrAspGlnTyrGlnGluLysAsnValAspGlnAlaSerGlySerValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     194 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ----CCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3.83e-15
373.50
52.58%
42.25%
14.70%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20890 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        UNKNOWN_1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3AA3D947D187AF9A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length: Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kim S.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the fat-fed databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Van
                                                        853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95 66 25 90 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Citters G.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dog.";
```

121

637

179

697 141 757 159 63

463

83

577

517

424

364

307 12

29

```
Alignment
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity:
Query Match:
DB:
                                                                                                                                                       В
                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                В
                                                Ş
                                                                                      ₽
                                                                                                             δ
                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-944-944-41 (1-1377) x Q910B9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0910B9 PRELIMINARY;
0910B9;
01-DEC-2001 (TrEMBLrel. 1
01-DEC-2001 (TREMBLrel. 2
01-JUN-2002 (TREMBLrel. 2
Collagen a3(I).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Complete primary structure of rainbow trout type consisting of al(1)a2(1)a3(1) heterotrimers."; Eur. J. Biochem. 268:2817-2827(2001).
EMBL; AB052836; BAB55662.1; -.
InterPro; IPR000087; Collagen.
InterPro; IPR000085; Fib_collagen_C.
InterPro; IPR001007; VWF_C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF01410; COLFI; 1.

Pfam; PF01391; Collagen; 1.

ProDom; PD000007; Collagen; 1.

ProDom; PD002078; Fib_collagen_C;

PROSITE; PS01208; VWFC; UNKNOWN_1.

SEQUENCE 1458 AA; 137758 MW; /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Actinopterygii; Meopterygii; Teleostei; Euteleostei; Protacanthopterygii; Salmoniformes; Salmonidae; Oncornaziones; Salmonidae; Oncornaziones;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-21257802;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12
1018
                                                                                                                                                                                                                                972
                                                                                                                        334
                                                                                                                                                                                            274
                                                                                                                                                                                                                                                               214
                                                                                                                                                                                                                                                                                                                                   166
                                                                                                                                                                                                                                                                                                                                                                      933
                                                                                                                                                                                                                                                                                                                                                                                                                                          913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28
                                                                                                      CACGCCGGGCCACCATGGCCAGGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGA
                                                                                                                                                                          GCCCCCACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGGCACCCCGGGCCTTCCAGG
                                                                                                                                                                                                                                               GCAGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyLysGluGlyGlnLysGlyGlyArgGlyGluThrGlyIleAlaGlyArgProGlyGlu
                pGlyProProGlyProLysGlyAspArgGlyGluAsnGlyAsnAlaGlySerProGlyAl
                                                    CGGCGCGCCCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGG-----
                                                                                                                                                                                                                                                                                                                   GGGGAGCCGGGAGGG-----
                                                                                                                                                                                                                                                                                                                                                                    ProMetGlyAlaProGlyThrProGlyProGlyGlyIleAlaGlyGlnArgGlyIleVal
                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaGlyAlaAlaGlyProProGlyProSerGlyAlaSerGlyAlaLysGlyAsnAspGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGT----
                                                                                  {\tt yAlaProGlyGluAlaGlyArgGluGlySerThrGlyHisAspGlyValSerGlyArgAs}
                                                                                                                                                                                                                                                                                               GlyGlyProGlyGlyArgGlyProSerGlyThrAlaGlyIleProGlyThrAlaGly---
                                                                                                                                                        ProValGlyGluArgGlySerProGlyProMet---GlyPro-ProGlyLeuSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N.A
                                                                                                                                                                                                                                                                                                                                                                                                      -GGAGCACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATC
                                                                                                                                                                                                                           -----GluProGlyLysGlnGlyProGlyGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed-11358497;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.67e-12
325.00
37.17%
32.15%
12.80%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19,
19,
21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (1-1458)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AB1F9F3410A98650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ۲
                                                                                                                                                                                                                                                                                                                   -GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gairdneri)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1458
109
17
106
106
107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oncorhynchus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              collagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -GACGGCAGG
                                                                                      1018
                                                                                                                                                          998
                                                                                                                                                                                                                             980
                                                                                                                                                                                                                                                               273
                                                                                                                                                                                                                                                                                                 971
                                                                                                                                                                                                                                                                                                                                  213
                                                                                                                                                                                                                                                                                                                                                                      952
                                                                                                                                                                                                                                                                                                                                                                                                                                        932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75
              RESULT
OTO AST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                of human
Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               076045
                                Jaenisch R., Prockop D.J.;
"Structure of a full-length cDNA
of human type I procollagen.";
Biochem. J. 253:919-922(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1998 (TrEMBLrel.
01-NOV-1999 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
                                                                                                    Tromp G., Kuivaniemi
                                                                                                                    SEQUENCE FROM N.A. MEDLINE-89025644;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pro alpha 1(I) collagen
                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE=85130970;
                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lyAlaPro-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       roGlyProIle-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGGGACCTCGAGGGGACCCCGGGCCG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08,
12,
21,
```

```
SEQUENCE FROM N.A.

MEDILINE-88329734; PubMed-2843432;

D'Alessio M., Bernard M., Pretorius P.J., de Wet W., Ramirez

"Complete nucleotide sequence of the region encompassing the
twenty-five exons of the human pro alpha 1(I) collagen gene.

Gene 67:105-115(1988).
                                                                                                                                                                                                                                                                                                      MEDLINE=85130970; PubMed=2857713; Chu M.L., de Wet W., Bernard M., Ramirez F.; Chu M.L., de Wet W., Bernard M., Ramirez F.; Chu M.L., de Wet W., Bernard M., Ramirez F.; Chu M.L., de Wet W., Bernard M., Ramirez F.; Chu Chu M., Chem. 10 collagen promoter structure, AluI repeats, and polymorphic transcripts.", Biol. Chem. 260:2315-2320(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTTTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCCTTCGACCGCGTGCTGGTGAACGAGCAG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sLysGlyHisArgGlyLeuAsnGlyMetProGlyLeuProGlyProSerGlySerPro--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          uGlyProAlaGlyAlaArgGlyAspLysGlyGluAlaGlyGluGlyGluArgGlyHi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            lyProArgGlyProHisGlySerSerGlySerThrGlyLysAspGlyMetAsnGlyLeuP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      yGluSerGlyProAlaGlyProAlaGlyProAsnGlyProAlaGlyGlyArgGlyGlyLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGGCGGGACCCGCGGGGCCT-----
                                        PubMed=3178743;
emi H., Stacey A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -GlySerProGlyLeuProGlyProProGlyProAlaGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ·GlyProProGlyProArgGlyArgAsnGlyLysMetGlyAlaAlaG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----GlyGluSerGlyProAlaGly-LeuAsnGlyProSerG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                             ٨.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------GTGCCTCCGCCGTCTGACGCACCCTT
  clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1461
                                             Shikata
    for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
the
                                             Η.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              update)
prepro
                                             Baldwin C.T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -GGACATTACGACGCCGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -GCCGGGGAGTGCTCGGT
alpha
  1(1)
                                                                                                                                                                                         F.;
first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 855
                                                                                                                                                                                                                                                                                                                                                      gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          568
```

```
Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Pest Local Similarity:
                                                                                                  γQ
                                                                                                                                                                         ρ
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                             Вþ
                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                               Best I
Query
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SQUARDOR REPRESENTATION OF THE PROPERTY OF THE
   β Q
                                                             Вb
                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                        US-09-944-944-41 (1-1377) x 076045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Westerhausen A., Constantinou C.D., Olsen A.S., Prockop D.J., "Completion of the last half of the the Pro alpha 1 (I) chain of type I Matrix 11:375-379(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDITAR=91188770; PubMed=1995349;
MEDITAR=91188770; PubMed=1995349;
Meatta A., Bornstein P., Penttinen R.P.;
Mighly conserved sequences in the 3'-untranslated COLIA1 gene bind cell-specific nuclear proteins.";
FEBS Lett. 279:9-13(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                scanning by conformation-sensitive gel electrophoresis identifies COLIAI mutations in 15 patients with osteogenesis imperfecta type identification of common sequences of null-allele mutations."; Am. J. Hum. Genet. 62:98-110(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMART; SM00038; COLFI;
SMART; SM00214; VWC; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF01410; COLFI; 1.
Pfam; PF01391; Collagen; 18
Pfam; PF00093; vwc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (MAY-1999) to the EMBL/GenBank/DDBJ databases. EMBL; AF011718; AAB94054.2; -IFRO00887; Collagen...
InterPro; IPR0000885; Fib_collagen_C.
InterPro; IPR001007; VWE_C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Korkko J., Ala-Kokko L., Prockop D.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProDom; PD000007; Collagen; 2.
ProDom; PD002078; Fib_collagen_C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ala-Kokko L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-92157916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Korkko
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Analysis of the COLIA1 and COLIA2 genes by PCR amplification
                                                                                                                                                                                                                                                                                                                                                                                                                                  Match:
                                                                         449
                                                                                                                                                  429
                                                                                                                                                                                                                           409
   469
                                      223
                                                                                                             175
                                                                                                                                                                                     130
                                                                                                                                                                                                                                                                                                   389
                                                                                                                                                                                                                                                              76
                                                                                                                                                                                                                                                                                                                                       28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PS01208; VWFC; 1.
                                                                                                                                                                                                                                                                                               GlyGlnProGlyAlaLysGlyAlaAsnGlyAlaProGlyIleAlaGlyAlaProGlyPhe
                                      CGCTATGAGGCCACTCCTCGT---
                                                                       GlyProValGlyValGlnGlyProProGlyProAlaGlyGluGluGlyLysArgGlyAla
                                                                                                                                                AsnSerGlyGluProGlyAlaProGlySerLysGlyAspThrGlyAlaLysGlyGluPro
                                                                                                                                                                                       GGGTCCGGAGTAGCGAGCGCCCCGAAGGAG
                                                                                                                                                                                                                         ProGlyAlaArgGlyProSerGlyProGlnGlyProGlyGlyProProGlyProLysGly
                                                                                                                                                                                                                                                              GCAGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA----
                                                                                                                                                                                                                                                                                                                                   GGAAAGCGGAGCCAGGGAGCGAACCAGGACTGGGGT-----GACGGCAGG
ArgGlyGluProGlyProThrGlyLeuProGlyProProGlyGluArgGlyGlyProGly
                                                                                                             GGAGGGGGACTGCGAGAGGACCCCGGCGTCCG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1461 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Earley J.J., Nuytinck L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=1787829;
Constantinou C.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                              5.59e-12
322.00
33.91%
29.87%
12.68%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             138630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ۰.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MW;
                                                                                                                                                                                                                                                                                                                                                                        (1-1461)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9ACF6DE30EA78E21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Α.
                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     structure of procollagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nuytinck L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DePaepe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     f the human (COL1A1).";
                                                                                                                                                                                                                                                                                                                                                                                                           1461
155
21
191
152
23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           M.Z.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prockop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Earley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         region
                                                                                                             -GGCTCCCGGTGCCAG
                                                                                                                                                                                     -GCCATCGGGGAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hanning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            U
                                                                                                                                                                                                                                                            -CCAACTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   only
I:
                                                                         468
                                                                                                                                                                                                                         428
                                                                                                                                                448
                                                                                                                                                                                     174
                                                                                                                                                                                                                                                              129
                                    243
                                                                                                           222
                                              Q
                                                                                        В
                                                                                                                         δÃ
                                                                                                                                                                   밁
                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                Вþ
                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ΩV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                     1096
                                                                                                                                                                   750
                                                                                                                                                                                                                                                                                                                    722
                                                                                                                                                                                                                                                                                                                                                       856
                                                                                                                                                                                                                                                                                                                                                                                                                              796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              244
                                    CTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGT
                                                                                                                               CTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rgGlyValGlnGlyProPro-----GlyProAlaGlyPro-----ArgGlyA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               laAsnGlyAlaProGlyAsnAspGlyAlaLysGlyAspAlaGlyAlaProGlyAlaProG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gGlyGluGlnGlyProAlaGlySerProGlyPheGlnGlyLeuProGlyProAlaGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlySerProGlyProAlaGlyProLysGlySerProGlyGluAlaGlyArgProGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGATCCCCAGCCT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----CCTGCTGCTCCTGGGCCTGGCCGCCTCGCCCACTGGACGACAA
                 laProGlyAspLys-GlyGluSerGly-----ProSerGlyProAlaGly-ProThrGl
                                                                                                                                                                laAspGlySerProGly---LysAspGlyValArgGlyLeuThrGlyProIleGlyProP
                                                                                                                                                                                                  GCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGG
                                                                                                                                                                                                                                                                             TCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTTAGTGCCCCACTGCAAAGTGA
                                                                                                                                                                                                                                                                                                                                                   lySerGlnGlyAlaPro----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAATCCATTGCCTCTTTCTTCCAGTTTTTCGGGG-----GGTGGCCCAAGCCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lyAspLeuGlyAlaProGlyProSerGlyAlaArgGlyGluArgGlyPheProGlyGluA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oProGlyGluAlaGlyLysPro------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCGAG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       yLysAspGlyGluAlaGlyAlaGlnGlyProProGlyProAlaGlyProAlaGlyGluAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               uProGlyLysAlaGlyGluArgGlyValProGlyProProGlyAlaValGlyProAlaGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGAGAAAGGCGAGGCCGGGACCCGGGACCT-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaGlyLeuProGlyAla-LysGlyLeuThrGlySerProGlySerProGlyProAspGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----CTGCCCGGGCACCCCGGCCTT------CCAGGCACGCCGGGCCACCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerArgGlyPheProGlyAlaAspGlyValAlaGlyProLysGlyProAlaGlyGluArg
                                                                                                                                                                                                                                                                                                                  -GlyLeuGlnGlyMetProGlyGluArgGlyAlaAlaGlyLeuProGly-
                                                                                                                                                                                                                                         -ProLysGlyAspArgGly------AspAlaGlyProLysGlyA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --CCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----CGAGGGGACCCCGGGCCGCGAGGGAGAGGCGGGACCCCGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -GlyGluGlnGly-ValProG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -AGCCGGGTGCCTCC
                                                                                                                               1095
                                                       1155
                     791
                                                                                                                                                                                                    1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             636
                                                                                                                                                                   769
                                                                                                                                                                                                                                             750
                                                                                                                                                                                                                                                                                                                                                       915
                                                                                                                                                                                                                                                                                                                                                                                                                                855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         508
                                                                                                                                                                                                                                                                                                                    737
                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              291
```

, Qy	D 45	Q (D Qy	рь	рь	US-09-944-	Query DB:	ተ፬ ፵ ውሳ	iqn					RT A M				_	Q9YIB4	9 dg	Db	Qy	D 64
235 ACTCCTCGTCCTGCTGCTCCTGGGCCTGGCCGGCCGGC	190 ANAMAKACACHA	0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	130 GGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGGACTGCG 189	82GCGCCCTGGCCGGGAGAAGCGCGGGGGTTGGAGCACCAACTGGA 129	25 GGAGGAAAGCGGAGCCGCAAGGAACCAAGGACTGGGGTGACGGCAAGGCAA	944-41 (1-1377) x Q9YIB4 (1-1450)	h: 12.66% Indels: 13 Gaps:).: 6e-12 Similarity: 352.50 Similarity: 35.298	SEQUENCE 1450 AA; 137564 MW; ABF8A74841B87B7C CRC64; nment Scores:	00038; COLFI; 1. 00214; VWC; 1. PS01208; VWFC; UNKNOWN_1.		Interpro; Iprollor; VWE_C. Pfam; PF01410; COLFI; 1.		MEDILINE-99407244; PubMed=10474166; Asahina K., Obara M., Yoshizato K.; Asahina K., Obara M., Yoshizato K.; Pasahina K., Obara M., Yoshizato K.; and type II collagen in the formation and development of the blastema of regenerating newt limb.";	•	Caudata;	common newt). Craniata; Vertebrata; Euteleost	01-MAY-1999 (TrEMBLrel. 10, Created) 01-MAY-1999 (TrEMBLrel. 10, Last sequence update) 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)	14 9YIB4 PRELIMINARY; PRT; 1450 AA.		aGlyProProGlyAlaAspGlyGlnProGlyAlaLysGlyGluProGlyAspAlaGlyAl	TAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC	1156 GGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGC
RESULT Q63123	Db	Qy	D 45	₽ .	OV Db	Qy	Qy	Qy	DB CS	Db	, pb	Qy	Qy	Db Qy	Db	Qγ	Qy Db	ОУ Db	Db	Qy Qy	. Db	Qy	Db
15	1278 snMetGluThr 1281	970 AAGTGAGCTCA 980	1258 lyAspTyrTrpIleAspProAsnGlnGlyCysAsnLeuAspAlaIleLysValHisCysA 1278	rgLysAsnProAlaArgThrCysArgAspLeuLysMetCysH1sSerAspTrpLysSerG	 1218 spThrThrLeuLysSerLeuSerAlaGlnIleGluAsnIleArgSerProGluGlyThrA 1238 911 911		817 GAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGGGTG- 863	766 GTTTTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGT 816 1181 lyPheAspPheSerPheMetProGlnProFroGlnProLysSerHisGlyAsp 1198	705 CCGGGCCAGCCTGCAGTTTGATCTGGTGAGAATGGCGAATCCATTGCCTCTTTCTT		1129 roProGlySerSerGlySerThrGlyLysAspGlyValAsnGlyLeuProGlyProIleG 1149 652 GTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTA 705	598 CTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAA 651	540CCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCC 597	527	1079 gGlyAspLysGlyGluAlaGlyGluGlnGlyGluArgGlyMetLysGlyHisArgGlyPh 1099	526 526	496 GCCCACCGGGCCTCCCGGGGGTGCTCGGTG	463 CCCCGGGCCG	::::::	999 yArgGluGlySerProGlySerGluGlyAlaProGlyArgAspGlySerProGlyProLy 1019 412 GGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGA 462	981 GlyProProGlyProSerGlyPro-ProGlyLeuGlyGlyProProGlyGluProGl 999 352 CAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGCGCGCGCG	292 CAAGATCCCCAGCCTCTGCCCGGGGGACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGG 351	 961 LeuProGlyProAlaGlyGluProGlyLysGlnGlyProSerGlyProAsnGlyGluArg 980

```
δÃ
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No.:
Score:
                                                                                                                           Š
                                                                                                                                                        밁
                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                              οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                Ş
                                                                                                밁
                                                                                                                                                                                                                                                                                                                           US-09-944-944-41 (1-1377) x Q63123 (1-1419)
              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        063123; PRELIMINARY; PRT; 1419 AA.
063123; Q63565;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2002 (TrEMBLED 21, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR000087; Collagen. C. InterPro; IPR000885; Fib_collagen_C. Pfam; PF01410; COLFI; 1. Pfam; PF01391; Collagen; 18. ProDom; PD000007; Collagen; 4. ProDom; PD002078; Fib_collagen_C; 1. ProDom; PD002078; Fib_collagen_C; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wurtz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00038; COLFI; 1. Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "T cell recognition of carbohydrates on J. Exp. Med. 180:745-749(1994). EMBL; L48440; AAA79780.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE-BONE FRACTURE CALLUS;
Urabe K., Sarkar G., Bolander M.E.;
Submitted (OCT-1995) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AJ224879; CAA1217
EMBL; X79816; CAA56213.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Michaelson E., Malmstrom V., Reis S., Engstrom Holmdahl R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=DA; TISSUE=CARTILLAGE; MEDLINE=94321934; PubMed=8046350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wurtz T., Brandsten C., Lumdmark C., Christersson C.;
Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Collagen alpha 1 type II (T1 mRNA).
T1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 1372-1419 FROM N.A.
Wurtz T., Brandsten C., Lumdmark C., Christersson C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Holmdahl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 370-422 FROM N.A.
                                            177
                                                                                                  164
                                                                                                                            169
                                                                                                                                                        144
                                                                                                                                                                                    133
                                                                      229
                                                                                                                                                                                                                124
                                                                                                                                                                                                                                                                  106 LeuGlyGlyAsnPheAlaAlaGlnMetAlaGly-----GlyPheAspGluLysAla
                286 CGACAACAAGAT--
                                                                                                                                                                                                                                          79
                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                     ProGlyProAlaGlyAlaProGlyProGlnGlyPheGlnGlyAsnProGlyGluProGly
                                                                                                                                                                                                                                                                                  CTGGGAGGAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCA 78
                                                                                                                           GAGCCGGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTAT 228
                                                                                                                                                                                    TCCGGAGTAGCGAGCGCCCCG------
                                                                                                                                                                                                            GlyGlyAlaGlnMetGlyValMetGlnGlyProMetGlyProMetGlyProArgGlyPro 143
                                                                                                                                                                                                                                       GGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA-----CCAACTGGAGGG
                                       -----ProGlyProAlaGlyLysProGlyAspAspGlyGluAlaGlyLysProGly 193
                                                                   GluProGlyValSerGlyProIleGlyProArgGlyPro-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1419 AA; 134570 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA79780.1; -.
CAA12179.1; -.
                                                                                                                                                                                                                                                                                                                                                     7.41e-12
320.00
36.34%
32.22%
12.60%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B7C63B77819CE50B CRC64;
                                                                                                                                                                                                                                                                                                                                                                   Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                       Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
              CCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCC
 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type
                                                                                                                                                                              II collagen.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A., Burkhardt H.,
                                                                                                                                                                                                                                                                                                                                                     1419
125
16
152
95
15.
123
                                                                                                                                                     163
                                                                                               176
                                                                                                                                                                                 168
```

435 leGlyProProGly 439	В
1036 CTGGCCCCCTGGA 1049	Qy
417AlaGlyGluGluGlyLysArgGlyAlaArgGlyGluProGlyGlyAlaGlyProI 435	Дb
976 GCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGACCAACCA	Qy
416 416	DЬ
916 TCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCCACTGCAAAGTGA 975	Qy
398 luGlnGlyProLysGlyGluThrGlyProAlaGlyProGlnGlyAlaProGlyPro 416	ДĎ
877 CTATG	Qy
379 GlyProLeuGlyProLysGlyGlnThrGly-GluProGlyIleAlaGlyPheLysGly-G 398	Дb
832 GGACCAAGTGTGGGTGCAGGTGGGTGGGTGACATTGGCAT 876	Qy
359 leAlaGlyAlaProGlyPheProGlyProArgGlyProPro-GlyProGlnGlyAlaThr 378	DЪ
777GETGGCCCAAGCCAGCCTCGCTCGGGGGGGGGGCCATGGTGAGGCTGGAGCCTGA 831	Qy
339 erGlyAsnProGlyThrAspGlyIleProGlyAlaLysGlySerAlaGlyAlaProGlyI 359	Db
739 TGGCGAATCCA TTGCCTCTTTCTTCCAGTTTTTCGGGG 776	Qy
324 rgGlyGluProGlyAsnProGlySerProGlyProAlaGlyAla	Дb
679 CTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAA 738	Qy
304 lyAlaLySGlyGluAlaGlyProThrGlyAlaArgGlyProGluGlyAlaGlnGlySerA 324	Db
619 CGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCCAGGTGCCTGGGGTCTA 678	Оу
293 roAlaGlyGly	Db
559 CGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAA 618	Оу
273 aGlyAlaArgGlyAsnAspGlyGlnProGlyProAlaGly-ProProGlyProValGlyP 293	Db
502 CGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTC 558	Qy
253 yProMetGlyProArgGlyLeuProGlyGluArgGlyArgThrGlyProAlaGlyAlaAl 273	Db
442 ACTGCCGGGACCTCGAGGGGACCCCCGGGCCGAGGAGAGAGA	Qy
233 uAlaGlyAlaProGlyValLysGlyGluSerGlySerProGlyGluAsnGlySerProGl 253	DЪ
391 CGACGGCGCCCGGGGCTCCGGGAGAGAAAA	Оy
213 oGlyLeuProGlyValLysGlyHisArgGlyTyrProGlyLeuAspGlyAlaLysGlyGl 233	DЪ
TTGCCGGGCCGC	Qy
194 LysAlaGlyGluArgGlyLeuProGlyProGlnGly-AlaArgGlyPheProGlyThrPr 213	망

Search completed: June 21, 2003, 16:06:10 Job time: 121.5 secs

THIS PAGE BLANK (USPTO)

ie76e01.x

BM544255 AGENCOURT
BI49080 603031867
BF882978 II3-ET7011
BF724241 bx02e11.y
BM966610 1J26910.y
BM966954 1J28e00.y
BM966954 1G703059737
AI805087 tu333989
BE138819 xw95h11.x
BI8120945 603031867
BM707291 UI-E-CR1-AI083823 qf18c00.x
AI083824 qf18c00.x
AI083824 qf18c00.x
AI083824 qf18c00.x
AM053336 UI-E-CR1-BM920874 AGENCOURT-BM674416 UI-E-CR1-BM920874 AGENCOURT-BM674416 UI-E-CR1-AW070344 xx10d10.x
AI393900 tg25g10.x
AI393910 tg25g10.x
AI393900 tg25g10.x
AW192716 x150x00.x
BF764330 RC6-CS00.7
AW172659 x180901.x
BF764311 UI-E-CK1-AW177650 x18000.x
AW177659 x18000.x
AW177659 x18000.x
AW177659 x18000.x
AW177659 x18000.x
AW177659 x18000.x
AW177659 x18000.x
AW177650 x18000.x
AW177650 x18000.x
AW177650 x18000.x
AW177650 x18000.x
AW177650 x18000.x
AW177650 x18000.x
AW1775561 zf25h01.s
BG913487 602811208
AN1775561 zf25h01.s

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Listing first 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Word size
   C
                             C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             on:
                                                                                                                                                                                          and is derived
                                                                                                                                                                                                                         Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB seq
                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length: 0
length: 2000000000
                                                                                                                                                                                     is the number of results predicted by chance to have a ster than or equal to the score of the result being printed, rived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OLIGO_NUC
                                                                                                              Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            June 21,
                                                                                                                              Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapop 60.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-41
1377
   48.4
47.0
45.8
43.3
42.4
42.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16154066 seqs, 8097743376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gactagttctcttggagtct..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gb_est1:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_estov:*
em_estpl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gb_est3:*
gb_est4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gb_est2:*
gb_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em_estro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_estmu:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          em_estin:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            em_esthum:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em_estba:*
                                                                                                                                                                                                                                                       em_gss_rod:*
                                                                                                                                                                                                                                                                    em_gss_other:*
em_gss_pro:*
                                                                                                                                                                                                                                                                                                                    em_gss_fun:*
em_gss_mam:*
                                                                                                                                                                                                                                                                                                                                                  em_gss_pln:*
em_gss_vrt:*
                                                                                                                                                                                                                                                                                                                                                                                                                                 em_estfun:*
em_estom:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gb_est5:*
                                                                                                                                                                                                                                                                                                     em_gss_mus:*
                                                                                                                                                                                                                                                                                                                                                                                  em_gss_inv:*
                                                                                                                                                                                                                                                                                                                                                                                                em_gss_hum:*
                                                                                                                                                                                                                                                                                                                                                                                                                  gb_gss:*
                                                                                                              Length
   1093
1154
1623
596
724
578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2003, 12:24:30 ; Search time 2191 Seconds (without alignments)
10178.542 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version 5.1.6 (c) 1993 - 2003 Compugen
                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chosen
                                                                                                              Ħ
                  BM924569
BM547549
BM926477
BM893587
BI771879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       summaries
                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aaaaaaaaaaaaaaaaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32308132
                BM924569
BM547549
BM926477
BM893587
B1771879
                                                                                                           Description
AGENCOURT
AGENCOURT
AGENCOURT
1j26g10.x
603055280
1j28e08.x
                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 1
BM924569
LOCUS
                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
                FEATURES
                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      o o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O
                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
         Contact: Robert Strausberg, Ph.D.

Email: ggapbs-r@mail.nih.gov

Tissue Procurement: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be

found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAM12808 row: m column: 07

High quality sequence stop: 590.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            570
560
551
549
532
532
521
508
481
480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3333333344
                                                                                                                                                                                                                                                                                                                                                  BM924569
BM924569.1
                                                                                                                                                                                                                                                                                                                                                                       AGENCOURT_6767665 NIH_MGC_116 Homo 5', mRNA sequence.
                                                                                                                                                                                                    Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1093)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441.

441.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

440.

                                                                                                                                                                                                                                                                                                                                                   GI:19374948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             869
887
410
413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AW070344
AI393090
W92687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B1770921
A1805087
B1820945
BE138819
B1763193
B1763193
B1490062
BM707291
A1083823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AI924106
M91217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA775561
BG913487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AI083824
BM693336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BF055285
AW137263
AI564511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AW192716
BF764330
BM668611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AI085548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM021127
BM544255
B1490880
BF882978
BF724241
BM966810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM021381
BI458455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM920874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BM966954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BG706609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                              mRNA linear EST 12-MAR-2002 sapiens cDNA clone IMAGE:5760942
```

AI346326 qp50a04.x

þe

BASE CO

Ş

```
Matches 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                       811
                                 991
                                                              601
                                                                                        931
                                                                                                                      541
                                                                                                                                                  871
                                                                                                                                                                            481
                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                           631
                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                      691
                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                   571
                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               331 AGGCACGCCGGGCCACGATGGCCAGGCCTTGCCGGGCCGCGATGGCCGCGACGGCCG
                                                                                                                                                                                                                                                             751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ь.
                                                                                                                                                                        Similarity
                                                                           CTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACT
                                                                                                                                 TGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTTCTGGTGTACTCCGA
                                CCTAGAA 997
                                                                                                                                                                                                                                CCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCAT
                                                                                                                                                                                                                                                                                                                                                               TTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGT
                                                              CTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACT
                                                                                                                                                                                                                                                             GCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGACGGCGCGCCCGGGGGCTCCGGGAGAGAGAAAGGCGAGGCCGGGAGGCCCGGGACTGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGA
                                                                                                                                                                                                                                                                                                                                                TTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTCGAGGGGACCCCGGGGCCGAGGAGGAGGCGGGACCCGGGGGCCCACCGGGCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCACGCCGGGCCACCATGGCAGGCCAGGGCTTGCCGGGCCGCGATGGCCGCCGACGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Organ: pooled colon, kidney, stomach; Vector: pCMV-SPORTG; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 3 colons, age 26 yo male, 49 yo female, 71 yo male colon; 46 yo male kidney, and pool of stomachs, 62 yo male and 70 yo female. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 023. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ρ
     667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="IMAGE:5760942"
/clone_lib="NIH_MGC_116"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    48.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 667; DB 14;
Pred. No. 1.9e-151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1093;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     λq
                                                                                                                                                                                                     870
                                                                                                                                                                                                                                                            810
                                                                                                                                                                                                                                                                                                                   750
                                                                                                                                                                                                                                                                                                                                                                           690
                                                                                                                                                                                                                                                                                                                                                                                                                                630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            510
                                                           660
                                                                                       990
                                                                                                                                               930
                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of
of
                                                                                                                    600
                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N
Qy
                               밁
                                                   Q
                                                                                     망
                                                                                                             δÃ
                                                                                                                                             밁
                                                                                                                                                                     Qy
                                                                                                                                                                                                    밁
                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                          밁
```

₽ S 밁 δ В ρ В Š g ΩV 밁 δÃ 멍 Ş 밁 δÃ Ъ Ş 밁 δ Ъ Ωy В

RESULT

N

١.

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BM547549
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
301
                            340
                                                            241
                                                                                           280
                                                                                                                             181
                                                                                                                                                             220
                                                                                                                                                                                             121
                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                            100
                                                                                                                                                                                                                                                                                                                                                                                         al Similarity
647; Conser
                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                                                                                                          \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5', mRNA sequence.
BM547549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGENCOURT_6507694 NIH_MGC_125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  High quality sequence stop:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              http://image.llnl.gov
Plate: LLAM12713 row: o column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; |
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM547549.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM547549
                              ACTGGACGACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCC 339
                                                                                                                                            CGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGAGA
                                                                                                                           GCCATCGGGGAGCCGGGAGGGGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGC
                                                                                                                                                                                                            GCCATCGGGGAGCCGGGGGGGGGGGCTCCCGGGGCTCCGGGGCTCCCGGTGC
                                                                                                                                                                                                                                                            ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCCGGCCTTCCAGGCACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 1154)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        178
                                                                                                                                                                                                                                                                                                                                                                                         Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="organ: ovary (pool of 3); Vector: pCMV-SPORT6;
Site_1: EcoRV (destroyed); Site_2: NotI; RNA source pool
of three ovaries, from females ranging in age from 38 to
49 yo. Library is oligo-dT primed and directionally cloned
(EcoRV site is destroyed upon cloning). Average insert
size 2.1 kb, insert size range 1-3.5 kb. Library is
normalized and enriched for full-length clones and was
constructed by C. Gruber (Invitrogen). Research Genetics
tracking code 036."

182 c 401 g 193 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5724522"
/clone_lib="NIH_MGC_125"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
1. .1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                         47.0%;
                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                       Score 647; DB 13; 1
Pred. No. 1.1e-146;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  591.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene
                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1154;
                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear ES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Euteleostom1;
Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST 20-FEB-2002
ne IMAGE:5724522
                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  эd
                                                                                                                                                                                                                           219
360
                                                                                                                           240
                                                                                                                                                                                           180
                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                          159
                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                          99
```

430

300 370 240 310 180

250

60

```
RESULT 3
BM926477
LOCUS
                                                                                                        BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04
04
05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΩV
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
                                Query Match
Best Local Similarity
Matches 631; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                          COUNT
                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1623 Ł
AGENCOURT_6644538 NIH_MGC_122
5', mRNA sequence.
BM926477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM926477.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         http://image.llnl.gov
Plate: LLAM12824 row: d column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 1623)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          found through the I.M.A.G.E. Consortium/LLNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGAGCAGGAGCAGGGACCATTACGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGACGCCGGGACTGCCGGGACCTCGAGG
GCAGGGCAGGGGGCCCTGGCCGGGGGGAGAAGCGCGGGGGGCTGGAGCCACCAACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCG 686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACCCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACCCCGGGCCGAGGAGAGGCCGGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCGGGGCTCCGGGAGAGAAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGG
                                                                                                                          263
                                45.8%; Solitarity 100.0%; I Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                       quality sequence stop:
                                                                                                                          þ
                                                                                                                   /note-*Organ: pooled lung and spleen; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 24 week female lung, 16 week female spleen, and 20-22 week male spleens. Library is oligo-dr primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 025. Note: this is a NHIMGC Library.*
                                                                                                                                                                                                                                                                                                                             /clone="IMAGE:5766864"
/clone_lib="NIH_MGC_122"
                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                    'lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                        .1623
                               Score 631; DB 14;
Pred. No. 5.6e-14;
0; Mismatches 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                       558.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                         01
                                .6e-143;
s 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens cDNA clone IMAGE: 5766864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene
                                                                 Length 1623;
                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST 12-MAR-2002
                                  0;
                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          639
 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                  0;
                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
BM893587/c
                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                           Dept or m
                                                                                                                                                                                                                                                                                                                                                                                                                   BM893587 596 bp mRNA linear EST 29-APR-2002 1j26g10.x1 Melton Normalized Human Islet 4 N4-HIS 1 Homo sapiens cDNA clone IMAGE:6136122 3' similar to TR:Q9UFX4 Q9UFX4
                                           Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical
Dept of Molecular and Cellular Biology, 7
                                                                                                                   Lemishka,I., Scearce,M., Brestelli,J., Gradwohi,G., Clifton,S., Hillier,L., Marra,M., Pape,D., Wylle,T., Martin,J., Blistain,A., Schmitt,A., Theising,B., Ritter,E., Ronko,I., Bennett,J., Cardenas,M., Gibbons,M., McCann,R., Cole,R., Tsagareishvill,R., Williams,T., Jackson,Y. and Bowers,Y.
Endocrine Pancreas Consortium
Unpublished (2000)
                                                                                                                                                                                                                                           Melton, D., Brown, J., Kenty, G., Permutt, A., Lee, C., Kaestner, K.,
Tel: 617-495-1812
Fax: 617-495-8557
                                                                                                    Contact: Douglas Melton, Klaus H. Kaestner,
                                                                                                                                                                                                                                                                                 Mammalia;
                                                                                                                                                                                                                                                                                                Eukaryota;
                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                    BM893587.1
                                                                                                                                                                                                                                                                                                                                                                                    BM893587
                                                                                                                                                                                                                                                                                                                                                                                                    HYPOTHETICAL 22.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGAGCCGGGAGCGGGGGGGACTGCGA 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGTCTACTACTTCGCCGTCCATGCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAGAGAAAGGCGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCGCTCCGAGAGCCGGGTGCCTTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGAGGCGGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCCACCATGGCAGCCAGGGCTTGCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCTGGGCCTGGCCGGCTCGCCCCACTGGACGACAACAAGATCCCCAGCCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGGTCTACTACTTCGCCGTCCATGCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGTGAACGAGCACGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGCTGCCCCATCCGCCTTCAGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGGCCGGAGGAGAGGCGGGACCC
                                                                                                                                                                                                                                                           mmalia; Eutheria; (bases 1 to 596)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCGATGGCCGCGACGGCGCGACGGCGCCCCGGGGGCTCCCGGGAGAAAAGGCGAGGGC
                                                                                                                                                                                                                                                                              Metazoa; Chordata; Craniata; Vertebrata; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                    GI:19349055
                                                                                                                                                                                                                                                                                                                                                                                                   KD PROTEIN ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             631
                                                 Divinity /
                                                                                                                                                                                                                                                                              Hominidae; Homo.
                                                                                                      & Hiroshi
```

670

540 610 480 550 420 490 360

600

À۷e,

Cambridge,

Euteleostomi;

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                1052
  116
                                                                                                                                                                                                                                                                                                                                                                                                                                     356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (brown@fas.harvard.edu)
Seg primer: -40UP from Gibco
High quality sequence stop: 441.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Library was constructed by Dr. Douglas Melton DNA sequencing Washington University Genome Sequencing Center For informatic obtaining a clone please contact: Juliana Brown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: dmelton@biohp.harvard.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                               AAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGA 1231
                                                                                                                                                                                                                                                                    GGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCC
                                                                                                                                                                                                                                                                                                                                                                           ATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCAAGGAATG 1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTC 991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGTGGGTGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCCACGGTGGGGTGCTCTTCCTGGGTCCTCTGCTTCTCTGGATCCTCCCACCCCCTC 1291
                                                                                                                                                                                                                GGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                  CTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAAT 1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGACCAGAGGAGTGTGCTGCTGCCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGA
                                                                                                                                                                                                                                                                                                                         ATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCCAAGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCCACTGCAAAGTGAGCTCATGCTCTCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      139
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Site_2: Sal 1; Starting library constructed using SuperScript Plasmid Library kit (Life Technologies). cDNA made by oligo-dT priming. Size-selected by column fractionation; average insert size 1.08 kb. Library was amplified once on solid support and plasmid DNA from library was prepared. The library DNA was normalized by method #4 from Bonaldo, Lennon, and Soares 1996 Genome Research 6:791-806; 0.5 microgram single-stranded library plasmid DNA was mixed with 5 micrograms PCR product representing library inserts and hybridized to an Ecot of 20. Single-stranded (unhybridized) plasmids were isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   library."
183 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20. Single-stranded (unhybridized) plasmids were isolated by hydroxyapatite chromatography and used to make this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:6136122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /sex="Both"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_lib="Melton Normalized Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Organ: Pancreas; Vector: pSPORT1; Site_1: Not 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_type="Islets of Langerhans"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             43.3%; Score 596; DB 14; 100.0%; Pred. No. 3.6e-134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 169 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      105 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                               1171
57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ဝ္ဂ
                                                                                                                                                                                                                                                                                                                                                                                                                                  297
```

Ş 밁 ρy 밁 Š

밁

 ${\bf e}_i$

Ş 멍 Š

문 Q ₽ Q 밁 δ 밁 δÃ 망

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 5
BI771879
                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                   δÃ
                                                  Ş
                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                              뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1292
182
                                                            088
                                                                                                                             122
                                                                                                                                                                                                                                                                                                                                                                                                                                   700 CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT 759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  584;
                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                              2 CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; V
Mammalia; Eutheria; Primates; Catarrhini;
1 (bases 1 to 724)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM11513 row: o column: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence.
BI771879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BI771879
603055280F1 NIH_MGC_122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        High quality sequence stop: 672.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be
                                                         TGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAG
                                                                                                                                                              GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTA 879
                                                                                                                                                                                                                                                             TGCCAGCATCAAGACAGCAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAG
                                                                                                                             GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGAGGTACATTGGCATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCTCCTGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTC 1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note-*Organ: pooled lung and spleen; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 24 week female lung, 16 week female spleen, and 20-22 week male spleens. Library is oligo-dr primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber full-length clones and was constructed by C. Gruber in the construction of the construc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Invitrogen). Research Genetics tracking this is a NIH_MGC Library." 184 c 211 g 152 t 1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5204971"
/clone_11b="NIH_MGC_122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 584; DB 13;
Pred. No. 2.2e-131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               724
Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bp mRNA lines
sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 724;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  er EST 25-SEP-2001
IMAGE:5204971 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             code
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             026. Note:
                                                                                                                                                                                                                                                             121
                                                                939
                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                             181
241
```

ORIGIN

```
RESULT 6
BM893691/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Melton,D., Brown,J., Kenty,G., Permutt,A., Lee,G., Kaestner,K., Lemishka,I., Scearce,M., Brestelli,J., Gradwohl,G., Clifton,S., Hillier,L., Marra,M., Pape,D., Wylle,T., Martin,J., Blistain,A., Schmitt,A., Theising,B., Ritter,E., Ronko,I., Bennett,J., Cardenas,M., Glbbons,M., McCann,R., Cole,R., Tsagareishvili,R., Williams,T., Jackson,Y. and Bowers,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             578 bp mRNA linear EST 29-APR-2002 ij28e08 x1 Melton Normalized Human Islet 4 N4-HIS 1 Homo sapiens cDNA clone IMAGE:6136046 3' similar to TR:Q9UFX4 Q9UFX4 HYPOTHETICAL 22.8 KD PROTEIN ;, mRNA sequence.
                                                                                                                                                                                                                                                                                             Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Douglas Melton DNA sequencing
Washington University Genome Sequencing Center For information
                                                                                                                                                                                                                                                                                                                                                                                                      Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity /
                                                                                                                                                                                                                                             Seg
                                                                                                                                                                                                                                                                              obtaining a clone please contact:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Douglas Melton, Klaus H. Kaestner, & Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 578)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BM893691.1 GI:19349159
                                                                                                                                                                                                                                                                                                                                                          Fax: 617-495-8557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human
                                                                                                                                                                                                                                                            (brown@fas.harvard.edu)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGGTGCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TEGGGTGCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGT 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                             02138
                                                                                                                                                                                                   primer: -400P from Gibco h quality sequence stop: '
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                          617-495-1812
                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                       1. .578
                                    /dev_stage="Adult"
/lab_host="DH10B"
                                                                                             /sex="Both"
/note="Organ: Pancreas;
Site_2: Sal 1; Starting
                                                                        /tissue_type="Islets of Langerhans"
                                                                                                           /clone_lib="Melton Normalized Human
                                                                                                                              /clone="IMAGE:6136046"
                                                                                                                                                                                                                        408.
Vector: pSPORT1; Site_1: Not library constructed using
                                                                                                                                                                                                                                                                                  Juliana Brown
                                                                                                               Islet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1283
                                                                                                             4
                                                                                                                                                                                                                                                                                                                                                                                                            Ave,
                                                                                                             N4-HIS
                                                                                                                                                                                                                                                                                                                                                                                                          Cambridge,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1179
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
```

Q

밁 Qy 밁 δÃ

밁 Ş 밁 δõ 밁 Qy 밁 δÃ 밁 Š

KEYWORDS SOURCE

numan.

ORGANISM

Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae;

Hominidae;

Euteleostomi;

ACCESSION VERSION

BM021127 BM021127.1

HYPOTHETICAL 22.8

ã

PROTEIN ;,

mRNA sequence

LOCUS DEFINITION

BM021127
574 bp mRNA linear EST 1 ie76e01.x1 Melton Normalized Human Islet 4 N4-HIS 1 Homo cDNA clone IMAGE:5672905 3' similar to TR:Q9UFX4 Q9UFX4

EST 12-MAR-2002

вм021127/с RESULT 7 ğ 밁 Ş g

```
BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 578
                                                                                                      1250
                                                                                                                                                                          1190
                                                                                                                                                                                                                                                1130
                                                                                                                                                                                                                                                                                                                    1070
                                                                                                                                                                                                                                                                                                                                                                                         1010
                                                                                                                                         158
                                                                                                                                                                                                                                                                                                                                                       338
                                                                                                                                                                                                               218
                                                                                                                                                                                                                                                                                   278
                                                                                                                                                                                                                                                                                                                                                                                                                            398
                                                                                                                                                                                                                                                                                                                                                                                                                                                             950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            al Similarity
578; Conserv
                                                                     98
 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTC 1347
                                                                                                                                                                                                                             GATCAGGTCTGGCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGC
                                                                                                                                                                                                                                                                                                   GGTGGGGTAGAGCACTCTCCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGC 1129
                                                                                                                                                                                                                                                                                                                                                                         GCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGA 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCGGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAGCCT
                                                                                                                                                                                                                                                                                                                                                       GCTGACAACCAGGTCATCCAGGAGGGCTTGGCCCCCCTGGAATATTGTGAATGACTAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                            TTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCACTCCTCAGAAGGAGGGTGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTC
                                                                                                                                                                                                               GATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGC
                                                                                                                                       TGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTC
                                                                                                                                                                                                                                                                                   GGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        made by oligo-dT priming. Size-selected by column fractionation; average insert size 1.08 kb. Library was amplified once on solid support and plasmid DNA from library was prepared. The library DNA was normalized by method #4 from Bonaldo, Lennon, and Soares 1996 Genome Research 6:791-806; 0.5 microgram single-stranded library plasmid DNA was mixed with 5 micrograms PCR product representing library inserts and hybridized to an Ecot of 20. Single-stranded (unhybridized) plasmids were isolated by hydroxyapatite chromatography and used to make this library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42.0%; Pr
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            score 578; DB; Pred. No. 7.6
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7.6e-130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                578;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                          1249
                                                                                                                                                                                                                                                1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           829
                                                                     39
                                                                                                                                           99
                                                                                                                                                                                                               159
                                                                                                                                                                                                                                                                                   219
                                                                                                                                                                                                                                                                                                                                                       279
                                                                                                                                                                                                                                                                                                                                                                                                                          339
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          519
```

```
δĀ
                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                        Q
  밁
                                              ğ
                                                                                                 밁
                                                                                                                                                                                             DЪ
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
  334
                                                                                                                                                  959
                                                                                                                                                                                                  454
                                                                                                                                                                                                                                                                                                                        570;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (2000)
Contact: Douglas Melton, Klaus H. Kaestner, & Hiroshi Inoue Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity Ave, Cam
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Library was constructed by Dr. Douglas Melton DNA sequencing by: Washington University Genome Sequencing Center For information on obtaining a clone please contact: Juliana Brown (brown@fas.harvard.edu) This sequence now available from the IMAGE consortium, for clone orders contact: info@image.llnl.gov High quality sequence stop: 413.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Melton, D., Brown, J., Kenty, G., Permutt, A., Lee, C., Kaestner, K., Lemishka, I., Scearce, M., Bresteili, J., Gradwohl, G., Clifton, S., Hillier, L., Marra, M., Pape, D., Wylie, T., Martin, J., Blistain, A., Schmitt, A., Theising, B., Ritter, E., Ronko, I., Bennett, J., Carden
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: dmelton@biohp.harvard.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Endocrine Pancreas Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 (bases 1 to 574)
Melton, D., Brown, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ,M., Gibbons,M., McCann,R., Cole,R., Tsagareishvili,R., Williams,T
_ Jackson,Y. and Bowers,Y.
CAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTA 1078
                                                                                                                        TGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAAC 1018
                                                                                                                                                                                                                       AGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAG 958
                                                                                                                                                                                                                                                                                               TGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                       TGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCCTGGAGGACCAA 838
                                                                                                                                                                                                AGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAG
                                                                                                 TGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    617-495-1812
617-495-8557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note-"Organ: Pancreas; Vector: pSPORT1; Site_1: Not 1; Site_2: Sal 1; Starting library constructed using SuperScript Plasmid Library kit (Life Technologies). cDNA made by oligo-dT priming. Size-selected by column fractionation; average insert size 1.08 kb. Library was parallified once on solid support and plasmid DNA from library was prepared. The library DNA was normalized by method #4 from Bonaldo, Lennon, and Soares 1996 Genome Research 6.791-806; 0.5 micrograms single-stranded library plasmid DNA was mixed with 5 micrograms PCR product representing library inserts and hybridized to an Ecot of 20. Single-stranded (unhybridized), plasmids were isolated by hydroxyapatite chromatography and used to make this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /sex="Both"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone_lib="Melton Normalized Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="IMAGE:5672905"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /lab_host-"DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue_type="Islets of Langerhans"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 570; DB 13;
Pred. No. 6.3e-128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  162 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Islet 4 N4-HIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cardenas
                                                                                                                                                                                                                                                                                                                                                                                              515
```

S

CAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGAGGACCAAGTGTGGGTGC

Matches

560;

Conservative

0,

Mismatches

Indels

0,

Gaps

0

848

Similarity

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 8
BM544255
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
ORGANISM
                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                  BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           274 GAGCACTCTCCGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34 GAGATCACTCAATAAACCTAAGAACCCTCA 5
                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Constrium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov mcolumn: 08 High quality sequence stop: 595.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Invitrogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalia; Eutheria; Primates; Ca
1 (bases 1 to 596)
NIH-MGC http://mgc.nci.nih.gov/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5', mRNA sequence.
BM544255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BM544255 596 bp
AGENCOURT_6490655 NIH_MGC_125 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM544255.1 GI:18775356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGATCACTCAATAAACCTAAGAACCCTCA 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCACTCTCCGTCCTGCTGCCAGGAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTC 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCA 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCCTGG 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTTGC 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGGTGCTGGC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGCTGCTGGC 1198
                                                                                  138
                                                                        /note-*Organ: ovary (pool of 3); Vector: pCMV-SPORT6; Site_1: EcoRV (destroyed); Site_2: NotI; RNA source pool of three ovaries, from females ranging in age from 38 to 49 yo. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 2.1 kb, insert size range 1-3.5 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 036."
                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5587759"
                                                                                                                                                                                                                                                                                      /clone_lib="NIH_MGC_125"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                              . 596
40.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Primates;
Score 560;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA linear EST 20-FEB-2002 sapiens cDNA clone IMAGE:5587759
                     Length 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ь́е
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             215
```

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                              BI490880/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                      FEATURES
                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                       吊
                                                                                                                                                                                                                                                                                                                                                                                                                                    Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                AUTHORS
                                          source
                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                            Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; F
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
1 (Dases 1 to 801)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collect
                                                              DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM1430 row: f column: 17
High quality sequence start: 8
High quality sequence stop: 738.
                                                                                                                                                                                                                                                                                                    EST
                                                                                                                                                                                                                                                                                                              BI490880
BI490880.1 GI:15330108
                                                                                                                                                                                                                                                                                                                                                             BI490880
                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                       mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                603031867T1 NIH_MGC_115
                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                        Unpublished (1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGGCAAGTGTAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTGGATCCTCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAGAGATCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGTGCTCTCTTCCTTGCTTCTTCTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGAGGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGGTAGAGCACTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCC
       /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5172880"
                                                    ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                              801
                                                                                                                                                                                                                                                                                                                                                bp mRNA linear EST 28-AUG-2001 sapiens cDNA clone IMAGE:5172880 3',
                                                                                                                                                                                                                                                                                                                                                           mRNA
                                                                                                                                                                                                                   Collection (MGC)
                                                                                                                                                                                                                                                                 Euteleostomi;
                                                                                                                                                                                                                                                       Homo.
                                                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                   SOURCE
ORGANISM
                                                                                                                                  RESULT 10
BF882978/c
                                                                          VERSION
KEYWORDS
                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                 ğ
                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                  REFERENCE
                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                             DEFINITION
                                                                                                                        LOCUS
                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 551;
                                                                                                                                                                                                                                                                                                                                                                                            1030
                                                                                                                                                                                                        1270
                                                                                                                                                                                                                                                     1210
                                                                                                                                                                                                                                                                                                  1150
                                                                                                                                                                                                                                                                                                                                                1090
                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                     340
                                                                                                                                                                                                                                                                                                                                                                                                                                           970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     850
                                                                                                                                                                                  40
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
1 (bases 1 to 553)
Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S.
                                                                                  BF882978
IL3-ET0113-061200-374-C10
BF882978
BF882978.1 GI:12273104
                                                                           EST
                                                                numan
                                                                                                                                                                                  TCTGGATCCTC
                                                                                                                                                                                                        TCTGGATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /lab_host="DH10B"
                                                                                                                                                                                                        1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40.0%;
100.0%;
                                                                                                                                                                                  30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                           553 bp
0 ET0113
```

```
/note="Organ: pooled brain, lung, testis; Vector:
pCMV-SPORT6; Site_1: Not1; Site_2: EcoRV (destroyed); RNA
source anonymous pool of 6 male brains, age range 23-27; 1
male lung, age 27; and 1 male testis, age 69. Library is
oligo-dT primed and directionally cloned (EcoRV site is
oligo-dT primed and directionally cloned (EcoRV site is
destroyed upon cloning). Average insert size 1.8 kb,
insert size range 1-3 kb. Library is normalized and
enriched for full-length clones and was constructed by C.
Gruber (Invitrogen). Research Genetics tracking code
021. Note: this is a NIH_MGC Library."

80 a 251 c 237 g 133 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clone_lib="NIH_MGC_115"
```

```
CCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGTGCTCTCTTCCTGGTCCTCTGCTTC
                                   CCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGGGTGCTCTTCCTGGTCCTCTGCTTC
                                                                        GGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGCTGTGCTGGCAAGTGTAAGTC
                                                                                                                                                 GTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGG
                                                                                                                                                                                    GTCCTGCTGCCAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGG
                                                                                                                                                                                                                        GGAGGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCC
                                                                                                                                                                                                                                           GGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCC
                                                                                                                                                                                                                                                                                                 AAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCA
                                                                                                                                                                                                                                                                                                                     AAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGGCTGACAACCAGGTCATCCA
                                                                                                                                                                                                                                                                                                                                                                           CGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                             CGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGAAGAATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTTCGGGGGGGTGGCCCAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTGAAGAATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTCGGGGGGGTGGCCCAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 551;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 13;
1.7e-123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                    1269
                                                                                                            1209
                                                                                                                                                                                    1149
                                                                                                                                                                                                                                                            1089
                                                                                                                                                                                                                                                                                                                                      1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      789
41
                                                                         101
                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                           341
                                                                                                                                                                                                                                                                                                                                                                                                              969
                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              849
                                                                                                                                                                                                                                                                                                 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   521
                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
```

Verjovski-Almeida,S.,

Briones, M.R.,

Euteleostomi;

sapiens

CDNA,

mRNA sequence. EST 17-JAN-2001

```
δÃ
                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                            뭥
                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                        1049
                                                                                                                       253
                                                                                                                                                                                         313
                                                                                                                                                                                                                           989
                                                                                                                                                                                                                                                            373
                                                                                                                                                                                                                                                                                           929
                                                                                                                                                                                                                                                                                                                             433
                                                                                                                                                                                                                                                                                                                                                                                               493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence was derived from the FAPESP/LICR Human Project. This entry can be seen in the following URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nagai.M.A., da Silva.W. Jr., Zago.M.A., Bordin,S., Costa.F.F., Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H., Brunstein,A., deoliveira.P.S., Bucher,P., Jongeneel,C.V., O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seq primer: puc 18 forward High quality sequence stop: 553.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (http://www.ludwig.org.br/scripts/gethtml2.pl?t1=IL3&t2=IL3-ET0113-
061200-374-C10&t3=2000-12-06&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tel: +55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Simpson A.J.G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence tags
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Laboratory of Cancer Genetics
                   CCCAAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCA
                                                                                                                                                                                                                                                       CTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGG 1048
                                                                                                                                                                                                                                                                                                                                           ATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCC 928
                                                                                                                                                                                                                                                                                                                                                                                                               ATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTG 116
                                                                                                                                                                                      CTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCCTGGCCCCCCTGG
                                                                                                                                                                                                                                                                                      GACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCA 988
                                                                                                                                                     AATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCCAAGGA 1108
                                                                                                                                                                                                                                                                                                                         ATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCC
                                                                                                                                                                                                                                                                                                                                                                                            GCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGTGGGTGACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Natl. Acad. Sci. U.S.A. 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note-"Organ: lung_tumor; Vector: puc18; Site_1: SmaI; Site_2: SmaI; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="taxon:9606"
/clone_lib="ET0113"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ∕organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 549; DB 12;
Pred. No. 7.1e-123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 andar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (7),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3491-3496 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 553;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                   1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              808
                                                                                                                     194
                                                                                                                                                                                                                                                                                                                         374
                                                                                                                                                                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                                                                                                                                                             868
                                                                                                                                                                                                                                                                                                                                                                                                                                                               494
S
                                 B
                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
```

ş 밁 Ş 밁 δÃ 밁

39

CCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGAG CCGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGGGGGGCGCCTGGCCGGGGAG

0;

Gaps

0

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
BF724241
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1229
  532;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: graeme@helix.nih.gov
Plate: 02 row: e column: 11
Seq primer: M13RP1 reverse primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tel: 301 402 3452 Fax: 301 496 0078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wistow,G.J., Bernstein,S., Behal,A. and Smith,D. NEIBANK: EST analysis and bioinformatics for ocu Invest. Ophthalmol. Vis. Sci. 41, (2000) In pre Contact: Wistow G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bF724241 532 bp mRNA linear EST (bx02e11.y1 Human Iris cDNA (Un-normalized, unamplified): sapiens cDNA clone bx02e11 5', mRNA sequence.
BF724241
BF724241.1 GI:12040150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria;
1 (bases 1 to 532)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    National Eye Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Section on Molecular Structure and Function
                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGCCCACGGTGGGGTGCTCTCTTGCTTGCTTCTTGCTTCTTGGATCCTCCCCACCCC 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCAAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAAGTCCCCCCAGTTGCTCTGGTCCA 74
  Conservative
                                                                                                    /note-*Organ: Eye; Vector: pCMVSPORT6; Post-mortem iris
tissue was pooled from 10 individuals ranging in age from
4-80 years and RNA was extracted. From this pooled sample
an aliquot of 60ug of total RNA yielded 2:17ug of mRNA. A
directionally cloned cDNA library in the pCMVSPORT6 vector
was constructed at Life Technologies, essentially
following the protocols of the SuperScript Plasmid System
full details of which are contained in the manufacturer's
Instruction manual (http://www.lifetech.com/) First
strand synthesis was carried out using a Not I
primer-adapter [5'-pGACTAGTTCTAGATCGCGAGCGCCCC(T)15-3'
]. Not I/Diunt end inserts were cloned into the Not I/Ecor
V sites in the vector. EST analysis was performed on the
unamplified library at the NIH Intramural Sequencing
Center (NISC)."

77 a 186 c 223 g 46 t
                                                                                                                77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="bx02e11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="Iris"
/dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /lab_host="EMDH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="Human Iris cDNA (Un-normalized, unamplified):
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bethesda, MD 20892-2740,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1297
                   38.6%;
  0;
Score 532; DB 12
Pred. No. 8.8e-1
0; Mismatches
                                             DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ABI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                             Length 532;
  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВX
```

```
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
BM966810
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                 Unpublished (2000)
Other ESTs: ij26g10 x1
Contact: Douglas Melton, Klaus H. Kaestner Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical Dept of Molecular and Cellular Biology, 7
                                                                                                                                                                                                                                                            Melton,D., Brown,J., Kenty,G., Permutt,A., Lee,C., Kaestner,K., Lemishka,I., Scearce,M., Brestelli,J., Gradwohl,G., Clifton,S., Hiller,L., Marra,M., Pape,D., Wylie,T., Martin,J., Blistain,A., Schmitt,A., Theising,B., Ritter,E., Ronko,I., Bennett,J., Cardenas,M., Glibons,M., McCann,R., Cole,R., Tsagareishvili,R., Williams,T., Jackson,Y. and Bowers,Y.
                                                               Washington University Genome Sequencing Center I obtaining a clone please contact: Juliana Brown (brown@fas harvard.edu)
Seq primer: -40RP from Gibco
                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
1 (bases 1 to 521)
                                                                                                                                                                                                                                                                                                                                                                                                                             EST
                                                                                                                                                                                                                                                                                                                                                                                                                                         BM966810.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM966810 521 bp mRNA linear EST 29-APR-201265010.y1 Melton Normalized Human Islet 4 N4-HIS 1 Homo sapiens cDNA clone IMACE:6136122 5' similar to TR:09UFX4 Q9UFX4 HYPOTHETICAL 22.8 KD PROTEIN ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                   Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACTGGACGACAAGATCCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGT 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGACCCCGGGCCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACTGGACGACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCCATCGGGGAGCCGGGAGGGGGACTGCGAGAGGACCCCCGGCGTCCCGGGCTCCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCCATCGGGGAGCCGGGAGGGGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGT 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCCGGGGCTCCGGGAGAGAAAGGCGAGGCCGGGAGGCCGGGACCTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGCCGACGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617-495-1812
617-495-8557
                                                    quality sequence stop:
/organism="Homo sapiens"
/db_xref="taxon:9606"
                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                     Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                         GI:19560211
                                                                                                                                                                                                                                                                                                                                                                      Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                  447.
                                                                                                     Douglas Melton DNA sequencing by equencing Center For information
                                                                                                                                                                                                                          H. Kaestner, &
                                                                                                                                                                                   Institute
Divinity Ave,
                                                                                                                                                                                                                            Hiroshi Inoue
                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 278
                                                                                         RESULT 13
BM966954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE CO
                                                                                                                                                                    δã
                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                 ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
 KEYWORDS
             VERSION
                        ACCESSION
                                                                                                                                             밁
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                           Ωy
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ωy
                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNT
                                                                                                                                                                                                                                                                              1017
                                                                                                                                                                                                                          1077
                                                                                                                                             481
                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                  957
                                                                                                                                                                                                                                                                                                                                                                                     897
                                                                                                                                                                                                                                                                                                                                                                                                                                      837
                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           521;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                        HYPOTHETICAL 22.8
BM966954
                                                 BM966954 517 bp mRNA linear EST 3 ij28e08.yl Melton Normalized Human Islet 4 N4-HIS 1 Homo cDNA clone IMAGE:6136046 5' similar to TR:Q9UFX4 Q9UFX4
             BM966954.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            þ
```

```
TAGAGCACTCTCCCGCTCCTGCTGCAGGCAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                                                                                                                                                                                                               ACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGGCCCAAGCCAGCCTCTCTCGGGGGGGGGCCATGGTGAGGCTTGGAGGCCTGAGGACC
TCTGGCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACC
                          TCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACC
                                                                                               TAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                          ACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                ACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                                                                                                             AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTTTCTTCCAGTTTTTCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTT
                                                                                                                                                                                                                                                                                    AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGTGTGGGTGCAGGTGGGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  37.8%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="Organ: Pancreas; Vector: pSPORT1; Site_1: Not 1;
/note="Organ: Pancreas; Vector: pSPORT1; Site_1: Not 1;
Site_2: Sal 1; Starting library constructed using
SuperScript Plasmid Library kit (Life Technologies). cDNA
made by oligo-dT priming. Size-selected by column
fractionation; average insert size 1.08 kb. Library was
amplified once on solid support and plasmid DNA from
library was prepared. The library DNA was normalized by
method #4 from Bonaldo, Lennon, and Soares 1996 Genome
Research 6:791-806; 0.5 microgram single-stranded library
plasmid DNA was mixed with 5 micrograms PCR product
representing library inserts and hybridized to an Ecot of
20. Single-stranded (unhybridized) plasmids were isolated
by hydroxyapatite chromatography and used to make this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             library."
140 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="IMAGE:6136122"
/clone_lib="Melton Normalized Human
/sex="Both"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tissue_type="Islets of Langerhans"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 521; DB 14; I Pred. No. 3.9e-116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               119 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                              1177
521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Islet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N4-HIS 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   836
                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                   1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                               480
                                                                                                                                                                                          420
                                                                                                                                                                                                                                      1076
                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                              956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

Ğ

PROTEIN ; ,

mRNA sequence

```
οy
                                                                                                                                                              В
                                                                                                                                                                                                       Q
                        Ş
                                                                      밁
                                                                                                                                                                                                                                                     ą.
                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                              717
                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mellon, D., Brown, J., Kenty, G., Permutt, A., Lee, C., Kaestner, K., Lemishka, I., Scearce, M., Brestelli, J., Gradwohl, G., Clifton, S., Hillier, L., Marra, M., Pape, D., Wylie, T., Martin, J., Blistain, A., Schmitt, A., Thelsing, B., Ritter, E., Ronko, I., Bennett, J., Cardenas, M., Gibbons, M., McCann, R., Cole, R., Tsagareishvill, R., Williams, T., Jackson, Y., and Bowers, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Douglas Melton DNA sequencing by:
Washington University Genome Sequencing Center For information on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (brown@fas.harvard.edu)
Seq primer: -40RP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Endocrine Pancreas Consortium Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               obtaining a clone please contact: Juliana Brown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Douglas Melton, Klaus H. Kaestner, & Hiroshi Inoue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Other_ESTs: ij28e08.x1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mammalia; Eutheria;
AAGTGTGGGGTGCAGGTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAG
                                                                                                                  GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                CCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCC
                                                                                                                                                                                                                                                                                       CCTGCCAGGTGCCTGGGGTCTACCTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCC 716
                                                                    GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             quality sequence stop: 456.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              617-495-8557
                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      617-495-1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note-"Organ: Pancreas; Vector: pSPORTI; Site_1: Not 1; Site_2: Sal 1; Starting library constructed using SuperScript Plasmid Library kit (Life Technologies). cDNA made by oligo-dT priming. Size-selected by column fractionation; average insert size 1.08 kb. Library was amplified once on solid support and plasmid DNA from library was prepared. The library DNA was normalized by method #4 from Bonaldo, Lennon, and Soares 1996 Genome Research 6:791-806; 0.5 microgram single-stranded library plasmid DNA was mixed with 5 micrograms PCR product representing library inserts and hybridized to an Ecot of 20. Single-stranded (unhybridized) plasmids were isolated by hydroxyapatite chromatography and used to make this library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="Islets of Langerhans"
/dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="IMAGE:6136046"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /sex="Both"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="Melton Normalized Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                            37.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ion/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                            Score 517;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       166 g
                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         119 t
                                                                                                                                                                                                                                                                                                                                                                            DB 14; 1
3.6e-115;
                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                Length 517;
                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Islet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ave, Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N4-HIS
                                                                                                                  836
                                                                                                                                                              120
                                                                                                                                                                                                                                                             60
                        896
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
BG706609
                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SDOO
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 AAGTGTGGGTGCAGGTGTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tissue Procurement: Miklos Palkovits, M.D., Ph.D. cDNA Library Preparation: Michael J. Brownstein (NF Toshiyuki and Piero Carninci (RIKEN) cDNA Library Arrayed by: The I.M.A.G.E. Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BG706609 630 bp mRNA linear bs: v/-pu 602672994F1 NIH_MGC_96 Homo sapiens cDNA clone IMAGE:4795558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 http://image.llnl.gov
Plate: LLAM10678 row: l column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BG706609.1 GI:13982121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop: 630.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                found through the I.M.A.G.E. Consortium/LLNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 630)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGG 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTGGCAGCATGGGCAGTGGCTGGATTTCTGCCCAA 1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGCACCTTCTCCGGATTTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTT 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG 1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA 1016
                                                                                           93
                                                                                                                           /note-*Organ: brain; Vector: pBluescriptR (modified pBluescript KS+); Site_1: BanHI; Site_2: SalIT-XhOI (gtcgag); Oligo-dT primed using primer 5'-TTTTTTTTTTTTTVN-3', size-selected for average insert size 2.3 kb and normalized to ROT 5. This is a primary library enriched for full-length clones and constructed using the Cap-trapper method (Carninci, in preparation). Library constructed by M. Brownstein (NIMH/NHCRI, National constructed by M. Brownstein (NIMH/NHCRI, National constructed by M. Brownstein (NIMH/NHCRI, National constructed by M. Brownstein (NIMH/NHCRI).
                                                                                        Institutes of Health).
                                                                                                                                                                                                                                                                                                                    /tissue_type="hypothalamus"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                            /clone_lib="NIH_MGC_96"
                                                                                                                                                                                                                                                                                                                                                                                   /clone="IMAGE:4795558"
                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POCAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                       .630
36.9%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ion/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata;
Primates;
Score 508; DB 12; Pred. No. 4.3e-113;
                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                        Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23
                                                                                                             this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             517
                     Length 630;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NHGRI), Shiraki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST 07-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
```

g

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
BM021381
                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                 REFERENCE
                                                               TITLE
JOURNAL
                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               608;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                          Melton,D., Brown,J., Kenty,G., Permutt,A., Lee,C., Kaestner,K., Lemishka,I., Scearce,M., Brestelli,J., Gradwohl,G., Clifton,S., Hiller,L., Marra,M., Pape,D., Wylie,T., Martin,J., Blistain,A., Schmitt,A., Thelsing,B., Ritter,E., Ronko,I., Bennett,J., Carden,M., Gibbons,M., McCann,R., Cole,R., Tsagareishvili,R., Williams
                           Unpublished (2000)
Other_ESTs: ie76e01.x1
Contact: Douglas Melton, Klaus H. Kaestner, 6
                                                                             .M., Gibbons,M., McCann,R., Cole,R., Jackson,Y. and Bowers,Y. Endocrine Pancreas Consortium
                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 567)
                                                                                                                                                                                                                                                                                                             DDA CLONE IMAGE: 5672905 5' Similar to TR:Q9UFX4 Q9UFX4 HYPOTHETICAL 22.8 KD PROTEIN ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                              EST
                                                                                                                                                                                                                                                                                              BM021381
BM021381.1
               Endocrine Pancreas Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGCAGGGCAGGGGGCGCCTGGCCGGGGGAGAAGCGCGGGGGGCTGGAGCACCACCAACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGCAGGGCAGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCAACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTTGGAGTCTGGGAGGAAGAGAGAGAGCGGAGCGAGCAACCAGGACTGGGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGCGGGGCCCACCGGGCCTGCCGGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGGGAGGCCGGGACTGCCGGGACCTCGAGGGACCCCCGGGCCGAGGAGAGGCGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCGGGCCACCCGGCCTTCCAGGCACGCCGCCCACCATGGCAGCCAGGGCTTGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCTCCTGGGCCTCGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCTCCTGGGCCTGGCGGCCGCCCCCCCCCCGCTGGACGACAAGATCCCCAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGAGGACCCCGGCCTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCCTCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCCTCCTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGAAGCCGGGAGGGGGGACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCTGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                               GI:16535737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               618
Howard Hughes Medical Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                              Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                EST 12-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                               Williams, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                              Cardenas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                    δ
                                                          밁
                                                                                     γ
                                                                                                                             밁
                                                                                                                                                 δÃ
                                                                                                                                                                                          밁
                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                   γQ
                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                       δÕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
507
                                                           447
                                                                                                                                                                                                                                                                                                                                                                                             147
                                                                                                                             387
                                                                                                                                                                                              327
                                                                                                                                                                                                                                                           267
                                                                                            799
                                                                                                                                                                                                                                                                                                                                                                                                                            499 CACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          obtaining a clone please contact: Juliana Brown (brown@fas.harvard.edu) This sequence now available from the IMAGE consortium, for clone orders contact: info@image.llnl.gov High quality sequence stop: 435.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Douglas Melton DNA s
Washington University Genome Sequencing Center For
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fax: 617-495-8557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dept of Molecular
MA 02138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: 617-495-1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                           CTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAA
                                                                                                                                                                                                                                                                                                                                            CGAGAGCCGGGTGCCTCCGCCCTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGAA
GGGTGACTACATTGGCCATCTATGCCAGCATCAAGACAGCACCTTCTCCCGGATTTCT
                                                           CTCGGGGGGGCCATGGTGAGGCTGGAGGACCAAGTGTGGGTGCAGGTGTGT
                                                                                          CGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTA
                                                                                                                                                                                                                                                                            CGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTA
                                                                                                                                                                                                                                                                                                                            CGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTCGACCGCGTGCTGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                            CACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGGCGGGGACCCGGGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGACTGCCGGGACCTCGAGGGGACCCCGGGGCCGGAGGAGGAGGCGGGACCCGGGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /ucce="Organ: Pancreas; Vector: pSPORT1; Site_1: Not 1; Site_2: Sai 1; Starting library constructed using SuperScript Plasmid Library kit (Life Technologies). cDNA made by oligo-dT priming. Size-selected by column fractionation; average insert size 1.08 kb. Library was amplified once on solid support and plasmid DNA from library was prepared. The library DNA was normalized by method #4 from Bonaldo, Lennon, and Soares 1996 Genome Research 6:791-806; 0.5 microgram single-stranded library plasmid DNA was mixed with 5 micrograms PCR product representing library inserts and hybridized to an Ecot of 20. Single-stranded (unhybridized) plasmids were isolated by hydroxyapatite chromatography and used to make this library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="Islets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="IMAGE:5672905"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /sex="Both"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone_lib="Melton Normalized Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and Cellular Biology, 7 Divinity Ave, Cambridge,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 481; DB; Pred. No. 1.4:0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of Langerhans'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.4e-106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Islet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequencing by:
r information o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N4-HIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
```

566 918 506 858 446 798 386 678 266 618 206 558 146 498 0

earch com Tob time :	ğ ÿ
completed: June 21, 2003, me : 2196 secs	919 G 919 567 G 567
21,	
2003,	
14:32:36	

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      June 21, 2003, 03:43:03; Search time 3716 Seconds (without alignments)
10784.328 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2054640 segs, 14551402878 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-944-944-41
1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gb_ba:*
gb_htg:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gb_om:*
                                           em_htg_mus:*
em_htg_pln:*
em_htg_rod:*
em_htg_mam:*
em_htg_vrt:*
em_sy:*
                                                                                                                           em_htg_hum:*
em_htg_inv:*
em_htg_other:*
em_htgo_hum:*
em_htgo_mus:*
em_htgo_other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gb_ph:
                                                                                                                                                                                                            em_pl:*
em_ro:*
                                                                                                                                                                                                                                      em_pat:*
em_ph:*
                                                                                                                                                                                                                                                                             em_mu:*
em_or:*
                                                                                                                                                                                                                                                                                                                                                 em_fun:*
                                                                                                                                                                                                                                                                                                                                                               em_ba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                    gb_ro:*
                                                                                                                                                                                   em_un:*
                                                                                                                                                                                                em_sts:*
                                                                                                                                                                                                                                                                 em_ov: *
                                                                                                                                                                                                                                                                                                                          em_in:*
                                                                                                                                                                                                                                                                                                                                       em_hum:*
                                                                                                                                                                                                                                                                                                                                                                                           gb_un : *
                                                                                                                                                                                                                                                                                                                                                                                                                        gb_sts:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4109280
```

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

RESULT	٥	0 0	a	0 0	Result
ULT 1	00000000000000000000000000000000000000	226 226 24 24 24	115 116 117 118 119	110 120 120 120 120 120 120 120 120 120	NO.
-	91.6 91.6 91.6 90.6 90.6 88.9 90.6 88.8 88.8 88.8 88.8 88.8 88.8	1000.6 1000.6 1000.6 99.6 92.6	512.8 513.4 500.4 472.4 439.4 187.4 161.8	13 13 13 13 13 13 13 13 13 13 13 13 13 1	Score
		66.7.23 6.7.23	44.5 37.3 36.6 36.3 34.3 31.9 113.6 7.8	100. 97. 96. 77. 66. 65. 50.	% Query Match
	7 in 12 in 10	4443 4908 128133 173817 855 1938 152147 152147	198902 173657 729 249283 150653 150653 150653 1886	1377 1370 1337 1347 1347 1068 191362 219574 182429 4220 173038 1234 1234	Length
	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0				DB
ALIGNMENTS	AX03995 AF329836 BC011699 AF269230 BC028770 BC028770 AR034252 AX195209 AX195209 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX358519 AX35	AX030953 AX430953 AL138787 AC012141 AX039974 AX039976 AC091842 AC091842 AC112191	AP001156 AC11257 AR138195 AR138195 AC124577 AC107174 HUMZD92F04 AC107174 AK055132 AR057770	AX464228 BC029485 AF329481 AF38193 HSM800923 HSM800923 AP003396 AP002956 AP001557 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP0650 AP06	ID
		AXIJ/4129 HOMIO SAPI AXI30953 Sequence AXI38787 Human DNA ACC112141 Homo sapi AX039974 Sequence M60832 Human alpha ACC112191 Homo sapi	Homo sap Rattus n Sequence Mus musc Rattus n Rattus n Homo sap Rattus n Homo sap	Seque Homo Seque Homo Homo Homo Homo Homo Homo Homo Hom	Description

AUTHORS	REFERENCE	ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	AX464228	KESULT L
Baker,K.P., Beresini,M., Deforge,L., Desnoyers,L., Filvaroff,E., Gao,W.Q., Gerritsen,M.E., Goddard,A., Godowski,P.J., Gurney,A.L., Sherwood,S., Smith,V., Stewart,T.A., Tumas,D., Watanabe,C.K.,	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	Homo sapiens Firkaryota: Metazoa: Chordata: Craniata: Vertebrata: Firteleogtomi:	human.		AX464228.1 GI:21899130	AX464228 .	Sequence 361 from Patent W00140466.	AX464228 1377 bp DNA linear PAT 16-JUL-2002		

Pred. No.

is the number of results predicted by chance to have a

```
BASE COUNT
ORIGIN
δõ
                             8 da 60 da 6
                                                                                                                                                                            P 69
                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                   뮵
                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Оy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   υb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Sin
Matches 1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                541
       841
                                                                                                                                                                                   661
                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                         781
                                                                                                            721
                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>121</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wood, W.L. a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genentech
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent:
                                                                                                                                                                                                    CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                             CGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                        GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                               CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                   GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTCCTGCTGCTGGGCCTGGCGGCCGGCCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                          CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                  CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGGTGACGGCAGGGCGCGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/db_xref="taxon:9606"
422 c 472 g 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1. .1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0140466-A 361 07-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d Zhang,Z.
transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (OS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1377; DB 6;
Pred. No. 1.3e-227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptides and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acids encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                         840
                                                                                                                                                780
                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                       840
                                                                                                          780
                                                                                                                                                                                   720
                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
片
              δÃ
                                    밁
                                                 δõ
                                                                      밁
                                                                                    Ş
                                                                                                          밁
                                                                                                                         Ş
                                                                                                                                           밁
                                                                                                                                                             Ş
                                                                                                                                                                                밁
                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                    요.
                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                          밁
1321
                  1321
                                    1261
                                                     1261
                                                                        1201
                                                                                         1201
                                                                                                           1141
                                                                                                                            1141
                                                                                                                                              1081
                                                                                                                                                                1081
                                                                                                                                                                                  1021
                                                                                                                                                                                                   1021
                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                        901
GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA 1200
                                                                                                                                                                                                                    CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                                                                                                                                          GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                          GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                 CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTTAGTG
                                                     GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                 GGTCATCCAGGAGGGCTGGCCCCCCCGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                                                                                                                                                                        CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                   1377
                                                                                                                                               1140
                                                                                                                                                               1140
                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                        960
```

REFERENCE AUTHORS TITLE VERSION
KEYWORDS
SOURCE
ORGANISM RESULT 2 BC029485 LOCUS ACCESSION DEFINITION

1370 bp mRNA Homo sapiens, C1q and tumor necrosis fac clone MGC:32938 IMAGE:5278184, mRNA, com, BC029485 BC029485.1 GI:20810468 Eukaryota; Metazoa; Mammalia; Eutheria; 1 (bases 1 to 1370) Homo sapiens Homo sapiens. Chordata; Primates; Craniata; Vertebrata; Catarrhini; Hominidae; Hominidae; Euteleostomi;

p mRNA linear crosis factor related mRNA, complete cds.

PRI 16-MAY-2002 protein 5,

REMARK COMMENT

JOURNAL

Strausberg, R.

Direct Submission
Submitted (01-MAY-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,

Shiraki

DNA Sequencing by: Sequencing Group at the Stanford Center, Stanford University School of Medicine, Stan Web site: http://www-shgc.stanford.edu Contact: (Dickson, Mark) mcd@paxil.stanford.edu Contact: (Dickson, Mark) mcd@paxil.stanford.edu Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A Genome CA 94305

Α., and Myers

Clone distribution: MGC clone distribution information can be for through the I.M.A.G.B. Consortium/LINL at: http://lmage.llnl.gov Serles: IRAK Plate: 48 Row: h Column: 14
This clone was selected for full length sequencing because it

846

853

786 733

```
δÃ
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                        ρy
                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                           γQ
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE
                                                                                                Ş
                                                                                                                                           Ωy
                                                                                                                                                                         В
                                                                                                                                                                                             ρ
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
  Š
                         밁
                                            γ
                                                                     밁
                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 1351; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                  367
                                                                                                                                                                                                                                                                          314
  667
                          614
                                                  607
                                                                          554
                                                                                                  547
                                                                                                                           494
                                                                                                                                                  487
                                                                                                                                                                          434
                                                                                                                                                                                                 427
                                                                                                                                                                                                                          374
                                                                                                                                                                                                                                                                                                   307
                                                                                                                                                                                                                                                                                                                           254
                                                                                                                                                                                                                                                                                                                                                  247
                                                                                                                                                                                                                                                                                                                                                                           194
                                                                                                                                                                                                                                                                                                                                                                                                  187
                                                                                                                                                                                                                                                                                                                                                                                                                         134
                                                                                                                                                                                                                                                                                                                                                                                                                                                 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            passed
                                                                                                                                                                         GGGCGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGAGGCGGG
                                                                                                                                                                                                                                                                                                                        GCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCT
                                                                                                                                                                                                                                                                                                                                                                        CGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGT
                                                                         CGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCG
                                                                                                                                     ACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAG
                                                                                                                                                                                                                          GGGCCGCGATGGCCGCGACGGCCGCGCGCGCGCGGGGCTCCGGGAGAGAAAGGCGA
                                                                                                                                                                                                                                      GGGCCGCGATGGCCGCGACGGCCGACGGCGCGCCCGGGGCTCCGGGAGAGAAAGGCGA
                                                                                                                                                                                                                                                                          CTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGGCCACCATGGCAGCCGGGGCTTGCC
                                                                                                                                                                                                                                                                                      CTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAATGGCAGCCAGGGCTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGCCCATCGGGGAGCCGGGAGGGGGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACGGCAGGGCAGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCACCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTCTTGGAGTCTGGGAGGAGGGAAGCGGAGCGAGCGAACCAGGACTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCTCTTTGGAGTCTGGGAGGAAGGAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGT
  GCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGA
                                                                                                                         ACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the following selection criteria: Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASIKTDSTFSGFLVYSDWHSSPVFA*
422 c 475 g 234 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLPGRDGRDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPP
RSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVY
RASLQFDLVKNGESIASFFQFFGGWPKPASLSGGAMVKLEPEDQVWVQVGVGDYIGIY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product="C1q and tumor necrosis factor related protein 5"
/protein_id="AAH29485.1"
/db_xref="G1:20810469"
/translation="MRPLIVILLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="MGC:33938 IMAGE:5278184"
/tissue_type="Brain, hypothalamus"
/clone_lib="NHH_MGC_96"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Vector: pBluescript"
234. .965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/db_xref="LocusID:114902"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1347.4; DB 9,
Pred. No. 1.6e-222;
0; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            matched mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gi: 14149711;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                  426
                                                                                                                                                                                                 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               126
                                                  666
                                                                                                                                                546
                                                                                                                                                                                                                          433
                                                                                                                                                                                                                                                                                                                        313
                                                                                                                                                                                                                                                                                                                                                 306
                                                                                                                                                                                                                                                                                                                                                                                                246
                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                66
                          673
                                                                          613
                                                                                                 606
                                                                                                                                                                         493
                                                                                                                                                                                                                                                                          373
                                                                                                                                                                                                                                                                                                 366
                                                                                                                                                                                                                                                                                                                                                                         253
                                                                                                                                                                                                                                                                                                                                                                                                                         193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ο,
                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                    KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                   RESULT 3
AF329841
                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                             DEFINITION
                                     FEATURES
                                                                                                                                                                                                                                                                          LOCUS
                                                                                                                                                                                                                                                                                                                                                                                     1274
                                                                                                                                                                                                                                                                                                                                                                                                            1267
                                                                                                                                                                                                                                                                                                                                                                                                                                    1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          787
                                                                                                                                                                                                                                     Homo sapiens complement-c1q t (CTRP5) mRNA, complete cds. AF329841
                                                                       2 (bases 1 to 1337)
Sheppard, P.O. and Humes, J.M.
Direct Submission
                                                  Submitted (20-DEC-2000) Bioinformatics, Eastlake Ave. East, Seattle, WA 98102,
                                                                                                           Homo sapiens complement-clq Unpublished
                                                                                                                                                                                                                        AF329841
AF329841.1
                                                                                                                                     Sheppard, P.O.
                                                                                                                                                             Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCCTTTTTCTCAGAGATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAGTGTGGGT
                                                                                                                                                                                                                                                                                                                                     TCAATAAACCTAAGAACCCTCATAAAAAAAAAAAAAA 1363
                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCCACAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCTGGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCAGCCTCGCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTCGGGGGGGTGGCCCAA
                                                                                                                                                                                                                                                                                                                                                                                     TGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAA
                                                                                                                                                (bases 1 to 1337)
                                                Ave. East, Seattle,
/organism="Homo sapiens"
/db_xref="taxon:9606"
                         Location/Qualifiers
1. .1337
                                                                                                                                                                                                                          GI:13274527
                                                                                                                                     and Humes, J.M.
                                                                                                                                                                                                                                                            tumor
                                                                                                                         tumor
                                                                                                                                                                                                                                                                      đđ
                                                                                                                                                            Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                         necrosis
                                                                                                                                                                                                                                                             necrosis
                                                                                                                                                                                                                                                                         mRNA
                                                  , ZymoGenetics, USA
                                                                                                                                                               Hominidae;
                                                                                                                                                                                                                                                            linear PRI 1 factor-related
                                                                                                                         factor-related
                                                                                                                                                                         Euteleostomi;
                                                                                                                                                                                                                                                                        PRI 12-MAR-2001
                                                             Inc.,
                                                                                                                        protein
                                                                                                                                                                                                                                                            protein
                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           906
```

1213

1206

1326

1273 1266 1153

1146 1093 1086

1033

973

```
δ
                B & B
                                                                 2 P P P
                                                                                                                                        δ
                                                                                                                                                              밁
                                                                                                                                                                           5
                                                                                                                                                                                             Вb
                                                                                                                                                                                                               Q
                                                                                                                                                                                                                               Вb
                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                   Дb
                                                                                                                                                                                                                                                                                                                     . 0
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                         QY
                                                                                                                                                                                                                                                                                                                                                                               멍
                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Sim
Matches 1324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                      611
                                                                       640
                                                                                                                                                               431
                                                                                                                                                                                                                                                                                                                          220
                                     700
                                                                                          551
                                                                                                            580
                                                                                                                             491
                                                                                                                                               520
                                                                                                                                                                                 460
                                                                                                                                                                                                   371
                                                                                                                                                                                                                                     311
                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                        251
                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                          191
                                                                                                                                                                                                                                                                                                                                             131
  760
                                                                                                                                                                                                                    400
                                                                                                                                                                                                                                                                                                                                                              160
                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                71
                                                                                                                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                              GGACCCCGGGCCGCGAGGAGAGACGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTG
                                                                                                                                                                                                                                                                                                                                                                               CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT
                                                                CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCAC
                                                                                                   GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACCAGGGACATTACGACGC
                                                                                                                                     CTCGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCC
                                                                                                                                                                                                   GGGCCACCATGGCAGGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGACGGCGACGGCGC
                                                                                                                                                                                                                                                                                                                    CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCAC
                                                                                         GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGACGAGCAGCAGGGACATTACGACGC
                                                                                                                             CTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCC
                                                                                                                                                                                                                                                                                ACTGGACGACAAGATCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCC
                                                                                                                                                                                                                                                                                                           GCCATCGGGGAGCCGGGGGGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGC
                                                                                                                                                                                                                                                                                                                                                      GCCATCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCGGGCTTCCGGGCTCCCGGTGC
                   CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT
                                                                                                                                                                                                                     GCCCGGGGCTCCGGGAGAAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGG
                                                                                                                                                                                                                                     GGGCCACCATGGCAGGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGACGGCGC
                                                                                                                                                                                                                                                                        ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /protein_id="AAK17965.1"
/db_xref="GI:13274528"
/db_xref="GI:13274528"
/translation="MRPLLVLLLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKKSESRVPPSDSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASIKGPGLYKGGETAKSFGFFGFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLYYSDWHSSPVPA"

4 417 c 459 g 226 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /codon_start=1
/product="complement-clq
protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /chromosome="11"
/map="11q23.3"
1. .1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="CTRP5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="CTRP5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note-"zsig39"
                                                                                                                                                                                                                                                                                                                                                                                                                                                              96.0%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1322.2; DB 9;
Pred. No. 3.5e-218;
D; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                factor-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                      670
                                                                                       610
                                                                                                          639
                                                                                                                                                                              519
                                                                       699
                                                                                                                            550
                                                                                                                                              579
                                                                                                                                                               490
                                                                                                                                                                                                   430
                                                                                                                                                                                                                   459
                                                                                                                                                                                                                                    370
                                                                                                                                                                                                                                                      399
                                                                                                                                                                                                                                                                        310
                                                                                                                                                                                                                                                                                         339
                                                                                                                                                                                                                                                                                                          250
                                                                                                                                                                                                                                                                                                                          279
                                                                                                                                                                                                                                                                                                                                             190
                                                                                                                                                                                                                                                                                                                                                             219
                                                                                                                                                                                                                                                                                                                                                                                130
                                                                                                                                                                                                                                                                                                                                                                                                 159
                                                                                                                                                                                                                                                                                                                                                                                                                 70
                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                        BASE COUNT
ORIGIN
                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
FEATURES
                                                                                                                                                                               RESULT 4
AR138193
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
Š
                  뫄
                               δÃ
                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                       ρy
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                1331
                                                                                                                                                                                                                                                                                                 1360
                                                                                                                                                                                                                                                                                                                   1271
                                                                                                                                                                                                                                                                                                                                    1300
                                                                                                                                                                                                                                                                                                                                                      1211
                                                                                                                                                                                                                                                                                                                                                                     1240
                                                                                                                                                                                                                                                                                                                                                                                                                           1091
                                                                                                                                                                                                                                                                                                                                                                                                                                             1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             731
 100
                   11
                                     40
                                                                                                   235
```

```
Query Match
Best Local Similarity
Matches 1324; Conserv
                                                                                                                                                                                                                                                                                                      Sequence 1
AR138193
AR138193.1
                                                                                                                                                                                                                                                              Unknown.
Unknown.
                                                                                                                                                                                              1 (bases 1 to 1347)
Sheppard, P.O. and Humes, J.M.
Addipocyte-specific protein homologs
Patent: US 6197930-A 1 06-MAR-2001;
                                                                                                                                                                                                                                                     Unclassified
                                                                                                                                                                                                                                                                                                                                            AR138193
                                       CGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGGCAGGGGGGCGCCTGGCCGGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                            AAAAAAA 1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCTGTCTGCGATCAGGTCTGGCAGGATGGGGGCAGTGGCTGGATTTCTGCCCAAGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGGTGCTCTCTTGCTGGTCCTCTCTCTGGATCCTCCCCACCCCCTCCTGCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGAGTGTGCTGCCAGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGAGTGTGCTGTGCCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGTGGGTGACTACATTGGCATCTA
                                                                            Conservative
                                                                                                                                              ø
                                                                                                                                                                       Location/Qualifiers
1. .1347
                                                                                                                                           /organism="unknown"
421 c 465 g
                                                                                                                                                                                                                                                                                                                               from
                                                                                       96.0%;
                                                                                                                                                                                                                                                                                                                           1347
patent US 619
                                                                            0;
                                                                           Score 1322.2; DB
Pred. No. 3.5e-210
D; Mismatches
                                                                                                                                                                                                                                                                                                                                347 bp
6197930
                                                                                                                                             226
                                                                                                                                                                                                                                                                                                                                              DNA
                                                                         3 6;
18;
3;
                                                                            Indels
                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                              PAT
                                                                           0;
                                                                                                                                                                                                                                                                                                                                               16-JUN-2001
 159
                          70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1030
                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             790
                                                                            0;
```

```
1031
                                                                                                 1060
                                                                                                                                            1000
                                                                                                                                                                                     940
                                                                                                                       971
                                                                                                                                                                  911
                                                                                                                                                                                                             851
                                                                                                                                                                                                                                   880
                                                                                                                                                                                                                                                         791
                                                                                                                                                                                                                                                                              820
                                                                                                                                                                                                                                                                                                   731
                                                                                                                                                                                                                                                                                                                         760
                                                                                                                                                                                                                                                                                                                                               671
                                                                                                                                                                                                                                                                                                                                                                   700
                                                                                                                                                                                                                                                                                                                                                                                           611
                                                                                                                                                                                                                                                                                                                                                                                                              640
                                                                                                                                                                                                                                                                                                                                                                                                                                    551
                                                                                                                                                                                                                                                                                                                                                                                                                                                        580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCATCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCGGGGTCCGGGCTCCCGGTGC
                                                                                                                                                               CTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG
                                                                                                                                                                                                           TGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAG
                                                                                                                                                                                                                                                     GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTA
                                                                                                                                                                                                                                                                                                  CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                       TGACTAGGGAGGTGGGGTAGAGCACTCTCCGGTCCTGCTGCTGCAAAGGAATGGGAACAGT
                                                                                                                    GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGACCCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGCCACCATGGCCAGGGCCTTGCCGGGCCGCGATGGCCGCGACGGCCGACGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCGCTATGAGGCCACTCCTCGTCCTGCTGCTCGGGCCTGGCCGGCTCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGAGTGTGCTGCTGCCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGG
                                            GGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAG
                                                                            TGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCC
                                 GGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAG
1119
                                                                                                                     1030
                                                                                                                                           1059
                                                      1179
                                                                           1090
                                                                                                                                                                                                                                  939
                                                                                                                                                                                                                                                                            879
                                                                                                                                                                  970
                                                                                                                                                                                       999
                                                                                                                                                                                                           910
                                                                                                                                                                                                                                                        850
                                                                                                                                                                                                                                                                                                  790
                                                                                                                                                                                                                                                                                                                        819
                                                                                                                                                                                                                                                                                                                                                                   759
                                                                                                                                                                                                                                                                                                                                                                                        670
                                                                                                                                                                                                                                                                                                                                                                                                              699
                                                                                                                                                                                                                                                                                                                                                                                                                                  610
                                                                                                                                                                                                                                                                                                                                                                                                                                                        639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    219
            1239
```

ρ

8 8 8 8

δÃ

Š 밁

Conservative

0;

2e-174;

0;

Gaps

0

δÃ Ъ δĀ В Qy

밁

Qγ

Ъ

B 8

B & B

Qγ

8 8 8

δ β δ

В Qy

g &

B 64 B

ρy

밁

```
polyA_signal
polyA_site
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 5
HSM800923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Locus
Query Match
Best Local Similarity
Matches 1065; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HSM800923
Homo sapiens 1
AL110261
AL110261.1 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Research Center (DKFZ); Email s.wiemann@dkfz^heidelberg.de; sequenced by MediGenomix (Martinsried/German) within the cDNA sequencing consortium of the German Genome Project. This clone (DKFZp586B052) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059 Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de Further information about the clone and the sequencing project is available at http://www.mips.biochem.mpg.de/proj/cDNA/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 1068) Ottenwaelder, B., Obermaier, B., Mewes, H.W., Gassenhuk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Martinsried, GERMANY Clone from S. Wiemann, Molecular Genome Analysis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wiemann,S.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (15-AUG-1999) MIPS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAAAAA 1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAAAAA 1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGAGTGTGCTGCTGCCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGG
                                                                                 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens.
                                                                               ø
                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
//db_xref="taxon:9606"
//db_xref="taxon:9606"
/clone="DtFzp58680621"
/tissue_type="uterus"
/clone_lib="586 (synonym: hute1). Vector pSport1;
DH10B; sites Not1 + Sall/MluI"
/dev_stage="adult"
                                                                                              1049
                                                                                                                                            Vtranslation="PSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEG
GRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSERVPPSDAPLPFD
RVLVNEQGHDAVTGKFTCQVPGVYFAVHATVYRASLOFDLVKNGESIASSFOQFEG
WPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLYYSDWHSSPVF
                                                                                                                                                                                                                                                                                                             /gene="DKFZp586B0621"
<1. .660
                                                                                                                                                                                                          /product="hypothetical protein"
/protein_id="CAB53702.1"
/db_xref="GI:5817223"
                                                                                                                                                                                                                                                             /codon_start=1
                                                                                                                                                                                                                                                                            /note="similarity to
                                                                                                                                                                                                                                                                                            /gene="DKF2p586B0621"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GI:5817222
                                                                               334 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA;
                77.3%;
99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA
Score 1064.4;
Pred. No. 9.2e.
0; Mismatches
                                                                               349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1068 bp mRNA
DKFZp586B0621 (1
                                                                               φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
                                                                                                                                                                                                                                                                            complement subcomponent
                                                                                 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Klopferspitz 18a,
                                                                               đ
                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (from
                                9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
n clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gassenhuber, J. and
                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         German Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRI 18-FEB-2000
DKFZp586B0621).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D-82152
                                 1068;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                            C1q
                                                                                                                                                                                                                                                                            chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             available
                                                                                                                                                                                                                                                                                                                                                                                              host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1299
                                                                                                                                                                                                                                                                              ď
```

8 B

QΥ В Qy 밁 5

419 121

359

_

61

299

```
AAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGG
                                                                                                                                                                                                                                                                          GAGCACTCTCCGTCCTGCTGCCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTC
                                                                                                                                                                                                                                                                                                                                                                               TGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGGTGCTGGC
                                                                                                                                                                                                                                                                                                                      CAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTA
                                                                                                                                                                                                                                                                                                                                     CAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCCTCCCCAGTCTTTGCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAG
                                                                                                                              AAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGGTGCTCTTCCTTGG
                                                                                                                                                                                                                                                         GAGCACTCTCCGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGATGCTCGGCTGCCTCCGCGATCC
                                                              TGGCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGGAGTGCTCGGTGCCTCCGCGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGGCGAGGGCGGGAGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGGCGAGGGGGGGGGGCCGGGGACCTCGAGGGGACCCCGGGGCCGCGAGGA
                                                                1020
                                                                                                                                                          1258
                                                                                                                                                                                                                                                                                     1138
                                                                                                                                                                                                                                                                                                                                                    1078
                                                                                                                                                                                                                                                                                                                                                                                                               1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           718
                                                                                                                              960
                                                                                                                                                                                         900
                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          898
                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
AP003396/c
LOCUS
DEFINITION
                                                                                        Š
                                                                                                                           B
                                                                                                                                                  δÃ
Б
                           Š
                                                              밁
                                                                                                                                                                                       밁
                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Sim
Matches 911;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
 6084
                                                              6144
                                                                                                                            6204
                                                                                                                                                                                         6264
                                                                                                                                                                                                                                                        6324
                                                                                                                                                                                                                                                                                                                 678
                               738
                                                                                                                                                          618
                                                                                                                                                                                                                        558
                                                                                                                                                                                                                                                                                       498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hattori, M., Ishii, K., Toyoda, A., Taylor, T.D., Hong-Seog, P., Fujiyama, A., Yada, T., Totoki, Y., Watanabe, H. and Sakaki, Y. Direct Submission 2019. Masahira Hattori, The Institute of Physical submitted (12-MAR-2001) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (SSC); 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail: hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170)
This work was done in collaboration with Arai, Y., Kubo, T. and Ohki, M. National Cancer Center Research Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5-1-1, Tsukij
zip: 104-0045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cancer Genomic Division 5-1-1, Tsukiji, Chuo-ku,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hattori,M., Ishii,K., Toyoda,A., Fujiyama,A., Yada,T., Totoki,Y., Homo sapiens genomic DNA Published Only in Database (2002) (bases 1 to 191862)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     phone:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        yarai@ncc.go.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AP003396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                         CCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGA 617
                                                                                                                                                                                                                                                        CCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCT
                  ATGGCGAATCCATTGCCTCTTTCCTTCCAGTTTTTCGGGGGGTGGCCCAAGCCCAGCCTCGC
                                                              ACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGA
                                                                                ACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGA
                                                                                                                                           ACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCT
                                                                                                                                                                                                                                                                      CCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCT
 ACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                46535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81-3-3542-2511 ex 4752,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
/map="11q"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="RP11-334E6"
45977 c 48722 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .191362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:20302607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               genomic DNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA,
                                                                                                                                                                                                                                                                                                                                                                                              66.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   clone:RP11-334E6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                               Score 909.8; DB 9;
Pred. No. 2.6e-147;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 191362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tokyo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               362 bp Dr
chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                50128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fax:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Taylor, T. Watanabe,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA linear PRI 25-APR-2002
ne llq clone:RP11-334E6, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81-3-3542-0688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ħ.D.
                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                   Indels
```

e-mail:

0;

Gaps

P Q

481 779 421

밁 Qy В ρ В ρy В Qy ф

719

361

659

301 599 241

539 181 479

Hong-Seog, P., and Sakaki, Y.

β δ Б γQ 밁 δÃ 밁 Ω 日 δõ 밁 δ 밁 5 닭 Š 뭐 QΥ

õ

857 6025 6145

677 6205 6265

6325 557

497 0

737

1259

1199

901

1139

781

841

1079

721

1019

e-mail:

0; Gaps

0;

497

209063

617

208943

677

208883

557

209003

```
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
AP002956/c
LOCUS
                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                D Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      дь
Оу
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64
64
65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24
5
5
5
5
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 νQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                    JOURNAL
                                                                                                                                                                  TITLE
                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           918
stSG31054,
D11S1941E,
stSG41092,
                                                Submitted (24-NOV-2000) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC); 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9171], Fax.81-45-503-9170)

Tel:81-45-503-9111, Fax.81-45-503-9170)

Overlapping Clones: pD71A4, PQ38G8

Cytogenetic Position: 21q22.1, region:D21S226-AML
STS Markers (ePCR): stSG53747, SHGC-16045, D11S2450, SHGC-7143,
                                                                                                                                                                                                                   Hattori,M., Toyoda,A., Taylor,T.D., Fuji
Totoki,Y., Watanabe,H. and Sakaki,Y.
Homo sapiens 219,574 genomic DNA of 11q
Published Only in Database (2002)
                                                                                                                                                                                                                                                                                                                                                        AP002956
AP002956.1
                                                                                                                                                                           2 (bases 1 to 219574)
Hattori,M., Toyoda,A., Taylor,T.D.,
Totoki,Y., Watanabe,H. and Sakaki,Y.
                                                                                                                                                                                                                                                                                                               Homo sapiens DNA, clone:R1105h09
                                                                                                                                                                                                                                                                                                                                              HIG
                                                                                                                                                                                                                                                                                                                                                                                   sequence
                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                              AP002956
                                          WI-16056
                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGAACCCTCATA 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCCCACCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAGAGATCACTCAATAAACCT 5485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCCCACCCCTCCTGCTCCTGGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTTGCTCCTCTGCTTCTCTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGGCAAGTGTAAGTCCCCCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCCGTCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGAACCCTCCTA
                                                                                                                                                                                                                                                                                        Eutheria;
              sts-x57110, WI-8978, WI-14589, stsG60191,
                                                                                                                                                                                                                                                                                     Metazoa; Chordata; Craniata; Vertebrata; Sutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                           GI:22255355
                                                                                                                                                                                                                                                                                                                                                                                                 genomic DNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5472
                                                                                                                                                                                                                                                                                                                                                                                                              219574 bp
                                                                                                                                                                                                                                                                                                                                                                                                 chromosome
            GDB:198117, stSG29284, SHGC-130657, stSG50535, A002048, stSG26946,
                                                                                                                                                                                                                                                          Fujiyama, A.,
                                                                                                                                                                                         Fujiyama, A., Yada, T.,
                                                                                                                                                                                                                                                                                                                                                                                               11q
                                                                                                                                                                                                                                                                                                                                                                                              linear PRI 15-AUG-2002 clone:R1105h09, complete
                                                                                                                                                                                                                                                                                       Hominidae;
                                                                                                                                                                                                                                                             Yada, T.,
                                                                                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                       γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                    Qy
                                                                  밁
                                                                                          δÃ
                                                                                                                        밁
                                                                                                                                             γ
                                                                                                                                                                            문
                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                        닭
                                                                                                                                                                                                                                                                                                                                                                   ρ
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Sin
Matches 911;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                        208582
                                                                                                                                                                               208642
                                                                                                                                                                                                                                  208702
                                                                                                                                                                                                                                                                                       208762
                                                                                                                                                                                                                                                                                                                                                                                                                                                     208942
                                                                                                                                                   978
                                                                                                                                                                                                                                                                                                                                                                                                                          678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               438
                                                                                                                                                                                                                                                                                                                798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             zip: 104-0045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cancer Genomic Division 5-1-1, Tsukiji, Chuo-ku,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contamination: none detected non-AGCT bases: none
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arai,Y., Kubo,T.,Ohki,M.
National Cancer_Center Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    yarai@ncc.go.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               phone: +81-3-3542-2511 ex4752,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Additional author information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TIGR-A005D38, Bdaa7g02, D11S869E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGGCCGCGAGGAGAGGCGGGACCCGCGGGGC
                                                                                                                                                                            CCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCACCGGGCCTGCCGGGGAGTGCTCGGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGACTGCCGGGACCTCGAGGGGACCCCCGGGGCCGGAGGAGGCGGGACCCGCGGGGC
            GCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGG
                                                                  GGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCT
                                                                                                                                                                                                                                                CCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACCGGGCCTGCCGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54883
                                                                                                                        ACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCT
                                                                                                                                                   TCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCCT
                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tsukiji, Chuo-ku, Tokyo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           മ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
/map="11q"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="R1105h09"
50356 c 53844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .219574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    66.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 909.8; DB 9;
Pred. No. 2.6e-147;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RH80030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  +81-3-3542-0688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 219574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
```

1157

208403

1097

208463

1037 208583

208523

917

208703 857 797 208823

208763

977

length length

length

```
APOO1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             208222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  208402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              208342
                                                                                                       NOTE: This is a 'working drait' sequence. It is not known and their 21 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

(bases 1 to 182429)
Hattori, M., Ishii, K., Toyoda, A., Taylor, T.D., Hong-Seog, P., Fujlyama, A., Yada, T., Totoki, Y., Watanabe, H. and Sakaki, Y. Homo sapiens 182,429 genomic DNA of 11q23
Published Only in DataBase (2000)

(bases 1 to 182429)

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (29-MAR-2000) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC); and Chemical Research (RIKEN), Vokohama, Kanagawa 230-0045, Japan 1-7-22 Suehiro-Chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AP001557.3 GI:11094164
HTG; HTGS_PHASE1; HTGS_I
                                                                                        preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens chromosome 11 clone RP11-680A7 map
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Jap
(E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/,
Tel:81-45-503-9111, Fax:81-45-503-9170)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGAACCCTCATA 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCCCACCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAGAGATCACTCAATAAACCT 20822:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAAGAGTCACTCAATAAACCT 1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAACCCTCCTA 208210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATC 1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nov
                                                                                                                                                                                                                                                      Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of reads Assembly program: Phrap; version 0.990329
Consensus quality: 175597 bases at least Q40
Consensus quality: 178555 bases at least Q30
Consensus quality: 179768 bases at least Q20
Insert size: 180429; sum-of-contigs
Quality coverage: 9.01x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Web site: http://hgp.gsc.riken.go.jp/
Contact: hattor1@gsc.riken.go.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center clone name: RP11-680A7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center project name:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center: RIKEN Genomic Sciences Center(GSC)
Center code: RIKEN
      30208
54458
69940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens DNA, clone:RP11-680A7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HTGS_PHASE1; HTGS_DRAFT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000 this sequence version replaced gi:8117391
54357 contig
69839 contig
84048 contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21 unordered pieces.
7 contig of
7 contig of
9 contig of
8 contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182429 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HumDraft11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi;
    30107
24150
15382
14109
कृष्
वृष्
    inin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
length
length
                                              length
                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ar HTG 03-NOV-2000
11q23, WORKING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          208283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                208343
                                                                                                                               FEATURES
                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              * is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          as soon as it is available and the be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        consists of 21 contigs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOTE: This is a 'working
                                                                                                                                                                       180919 181018:
                                                                                                                                                                                                                 178309 178408:
                                                                                                                                                                                                                                                           175606 175705:
                                                                                                                                                                                                                                                                                                    172762 172861:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 145888 145987: gap of
145988 153199: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      107864
119158
128235
                                                                                                                                                                                                                                                                                                                                                                                                              165253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69840 69939: gap of 100 bp in 69940 84048: contig of 14109 bp in 84049 84148: gap of 11029 bp in 84149 95177: contig of 11029 bp in 95178 95277: gap of 100 bp 95278 107763: contig of 12486 bp in 95278 107763: contig of 12486 bp in 100 bp 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59566 159665:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              128135 128234: gap of 100 bp 128235 136903: contig of 8669 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19058 119157:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30107: contig of 30107 bp in length
30108 30207: gap of 100 bp
30208 54357: contig of 24150 bp in length
54358 54457: gap of 100 bp
54458 69839: contig of 15382 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                  65153 165252:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63581 163680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53200 153299:
                                                                                                                                                                                                                                                                                                                                              70461 170560:
                                                                                                                                                                                                                                                                                                                                                                                        66902 16700:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              45988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 bp
164 119057: contig of 11194 bp in length
158 119157: gap of 100 bp
158 128134: contig of 8977 bp in length
                                                                                                                             Location/Qualifiers
                                                             /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                             : gap of
175605: cr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       145887: cc
1987
                                                                                                                                                   82429:
                                                                                                                                                                                                                                705: gap of 100 l
78308: contig of 2603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1299: gap of 100 r
                                                                                                                                                                                               80918:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 182429 contig of
                                                                                                                                                                       gap of
                                                                                                                                                                                                              gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                gap of
                                                                                                                                                                                                                                                                                                                                            gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gap
                                                                                                                                                                                                                                                                                                                                                                                      gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gap of
                                                                                                                                                                                                                                                                        ap of 100 bp
contig of 2744 bp
                                                                                                                                                                                                                                                                                                                                                           ap of 100 l
contig of 3459
                                                                                                                                                                                                                                                                                                                                                                                                     contig of 1649
                                                                                                                                                                                                                                                                                                                                                                                                                                               contig of 1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig of 3915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of 100 bp contig of 7212 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig of 8884
                                                                                                                                                                                             contig of 2510
                                                                                                                                                                                                                                                                                                                    contig of 2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig
                                                                                                                                                   contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cont.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The true order
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           draft' sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 bp
14109 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dq 00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1411 bp
                                                                                                                                                                                                                              مُوْمٍ ،
                                                                                                                                            dq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ф
                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                      ďď
                                                                                                                                                                                                                                                                                                                                                                                                                                  ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             đđ
                                                                                                                                                                                             ğ
                                                                                                                                                                                                                                                                                                                          ď
                                                                                                                                                                                                                                                                                                                                                                    ğ
                                                                                                                                                                                                                                                                                                                                                                                                              φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             рp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ಕ್ಕರ್
                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                    in
                                                                                                                                                                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ín
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                     'n
                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                              'n
```

in length

length

length

length

length length length length length length length

Length length of the pieces

It currently

Lengt

length

leng:

length length lengt

leng leng leng:

length length

Leng: leng: leng:

```
Qγ
                                                                                                                                    망
                                                                                                                                                      QY
                                                                                                                                                                             DЬ
                                                                                                                                                                                                     ρy
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                  Qy
                   δÃ
                                       рЬ
                                                             Qy
                                                                                       В
                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                             Matches 909;
                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                               108011 CAGGACTGCCGGGACCTCGAGGGGACCCCGGGGCCGAGGAGAGGCGGGACCCCGCGGGGC
                                                                                                                                      108131
                                                                                                                                                                                   108071
                                                                                                              618
                                                                                                                                                                                                          498
                                                                                                                                                                                                                                                       438
                                                                                                                                                                                                                                                                                        Similarity
                                           ACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGA
                                                                                                                                                CCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGA
                                                                                                                                                                                              CCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCCGATCCGCCTTCAGCGCCCAAGCGCT
ACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCT
                                                                                                                                    CCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGA
                                                                                                                                                                                   CCACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCT
                                                                                                                                                                                                                                                      CGGGACTGCCGGGACCTCGAGGGGACCCCCGGGGCCGGGAGGAGGCGGGGACCCGCGGGGC
                                                                                                                                                                                                                                                                                                                                     45724
                                                                                         ACGAGCA-GGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCT
                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                     þ
                                                                                                                                                                                                                                                                                                                             181019. .182429
/note="assembly_fragment"
- 42083 c 43875 g 48747
                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_fragment"
170561. .172761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="assembly_fragment clone_end:T7 vector_side:left"
165253. .166901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="assembl
159666. .16358
                                                                                                                                                                                                                                                                                                                                                                                                       /note="assembly_fragment"
175706. .178308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="assembly_fragment"
153300. .159565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="assembly_fragment"
137004. .145887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              54458. .69839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_fragment"
30208. .54357
                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
181019. .182429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="assembly_fragment clone_end:SP6 vector_side:left"
167002. .170460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         145988. .153199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             119158.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment"
107864. .119057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                           'note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .30107
                                                                                                                                                                                                                                                                                     65.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                       -"assembl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . . 136903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .84048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .107763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .54357
                                                                                                                                                                                                                                                                                                                                                                                 .180918
                                                                                                                                                                                                                                                                                                                                                                                                                               .175605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .163580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      165152
                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                      Score 896.2; DB 2; Pred. No. 5.8e-145;
                                                                                                                                                                                                                                                                                                                                                                                                                                      .y_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .y_fragment"
                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                      rt
                                                                                                                                                                                                                                                                                                                                     2000
                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                 Length 182429;
                                                                                                                                                                                                                                                                                                                                     others
                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                           617
                                                                                                                                    108190
                                                                                                                                                                                                         557
 108369
                                                                                                              677
                                                                                                                                                                                                                                                      497
                      797
                                            108309
                                                                                                                                                                                  108130
                                                                                                                                                                                                                               108070
                                                                                        108249
                                                                                                                                                                                                                                                                          1;
                                                                           PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                    RESULT 9
AF469650
                                                                                                                                                                                                                              SOURCE
ORGANISM
                                                                                                                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                 멼
                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                     KEYWORDS
                                                       FEATURES
                                                                                                                                                           TITLE
                                                                                                                                    JOURNAI
                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        108490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   108370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108430
                                                                                                                                                                                                                                                                                                                                                                                                                            108850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     108730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  108670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            108550
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   978
                                                                                                                                                                                                                                                                            mRNAs, complete AF469650
                                                                   Bar
                                                                                                                                                                      and Nishina, P.M.
                                                                                                                                                                                                         Mammalia;
                                                                                                                                                                                                                 Eukaryota;
                                                                                                                                                                                                                               Mus musculus
                                                                                                                                                                                                                                          Mus musculus.
                                                                                                                                                                                                                                                                 AF469650.1
                                                                                                                           2140190
                                                                                                                                                                                                                                                                                                                                                                                AAGAACCCTCCTA
```

```
AF469650

AF200 bp mRNA linear ROD 31-JUL-2002 Mus musculus membrane-type frizzled-related protein (Mfrp) and complement-clq tumor necrosis factor-related protein (Clqtnf5) mRNAs, complete cds.
                                                                                                                                                 Kameya, S., Naggert, J.K. and Nishina, P.M. Direct Submission
Submitted (17-JAN-2002) The Jackson Labo
                                                                                                                                                                                                                                                  Mfrp, a gene encoding a frizzled related protein, mouse retinal degeneration 6 Hum. Mol. Genet. 11 (16), 1879-1886 (2002)
                                                                                                                                                                                                                                                                                                                               Kameya, S., Hawes, N.L., Chang, B., Heckenlively, J.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGAACCCTCATA 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCTGGTCCAGGAGCCCACGGTGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCTGGTCCAGGAGCCCACGGTGGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCCCACCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAGAGATCACTCAATAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCCCACCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAGAGATCACTCAATAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCTGGTCATCCAGGAGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 4220)
                                                                                                                                                                                                                 (bases 1 to 4220)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Harbor, ME 04609, USA Location/Qualifiers
/organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/chromosome="9"
/map="26 cM"
                                                                                                                                                                                                                                                                                                                                                                        ; Metazoa; Chordata; Craniata; Vertebrata; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GI:22023766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            108922
                                                                                                                                                         Jackson Laboratory,
                                                                                                                                                         600
                                                                                                                                                                                                                                                                                             18
                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                    Naggert, J.K.
                                                                                                                                                         Main
                                                                                                                                                                                                                                                                                                 mutated in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     108549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   108489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108429
```

```
В
                        γ
                                                       밁
                                                                            δ
                                                                                                              В
                                                                                                                                      δδ
B
                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                            Ϋ́
                                                                                                                                                                                                                                                                                                                                                                                                         DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
   3479
                                                                                                                                                                                                                                       3239
                                                                                                                                                                                                                                                                                                 3179
                                                                                                                                                                                                                                                                                                                                                          3119
                                                                                                                                                                                                                                                                                                                                                                                                                   3059
                                                                                                                                                                                                          429
                                                                                       549
                                                                                                                                                                                                                                                                    369
                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                       249
                                                                                                                                                                                                                                                                                                                                                                                                                                                189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           921;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                         CCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCG
                                                                                                                                  CCGCGGGCCCACCGGGCCTGCCGGGGAGTGCCTCGGTGCCTCCGCGATCCGCCTTCAGCG
                                                                                                                                                                                            GCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGGAGGCGGGAC
                                                                                                                                                                                                                                                      GCCGCGATGGCCGCGACGGCGACGGCGCGCGCGCGGGGCTCCGGGGAGAGAAAGGCGAGG
                                                                                                                                                                                                                                                                                                               GCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCCAGGCCAGGGCTTGCCGG
                                                                                                                                                                                                                                                                                                                                                                        TGCTCCTGGGCCTGGCCGGCCTCGCCCACTGGACAACAAGATCCCCAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCCGGAGCTCCCGGGAGAGAAAGGCCGAGG
                                                                                                                                                                                                                                                                                                TECTTCTEGETCTEGTCTCAGGCTCTCCTCCTCTGGACGACAACAAGATCCCCAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGAGGACCCCGGCGTCCCGGGTGCCAGCGCTATGAGGCCACTCCTCGTCCTGC
                              TGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGC
                                                           CCAAGCGATCCGAGAGCCGGGTACCTTCCGCCAGCCGACACCCCCTACCTTTCGACCGTG
                                                                                                                                                                             GCGGGAGACCGGGGACTACCTGGCCCACGTGGGGAGCCCGGGGCCGCGTGGAGAGGCAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          50.6%;
llarity 78.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     а
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /protein_1d="AAM89217.1"
/db_xref="G1:22033768"
/db_xref="G1:22033768"
/translat.ton="MRRICHALLLIGIVSGSPPLDDNKIPSLCPGQPGLPGTPGHHGSO
GLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGEPGPRGEAGPMGAIGPAGECSVPP
RSAFSAKRSESRVPPPADTPLPFDRVLLNEQGHYDPTTGKFTCQVPGVYYFAVHATVY
RASLGPDLVKNGQSIASFGVYFGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIY
ASIKTDSTFSGFLYYSDWHSSPVFA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FSSNKYPDLYPPLSHCYWHIQVAAGOTIQLKIQALSIESMLTGLFDRLEIISEPTGPL
LRYCGKTPPATLNTNTSHLRYSFYSDNDVEGSGFQAWTQAVAFGHWSCAHNEFHGCDLL
LCLKRDSYCDGITECADGSDEANCSAKTLGGGGNLTGLLYGYESTPNYPQHYPHQQLI
WYIEVPVGYGGITLEHHNFSLEAQAECKPDYVEVYEASNLGTFSFLGRFCGAEPPLNVV
SSMHQLAVIFKTDLGISSGGFLATYQALNTTESGCPWABEFCQSGYRDLQWMCDLWKD
CANDSNDNCSSHLSPQDETCEFVQVEWCLGLSYNTTAFFNLWYGLATOTEVTDILTG
CANDSNDNCSSHLSPQDETCGLLVPRCTSLGTILPPCRSVCQAAEQQCQSSLALLGTPWP
XKSLTSLPCYQTFQRFLCGLLVPRCTSLGTILPPCRSVCQAAEQQCQSSLALLGTPWP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /codón_start=1
/prodúct="membrane-type frizzled-related protein"
/protein_id="Aan89216.1"
/protein_id="Aan89216.1"
/db_xref="GI:22023767"
/translation="MKDYDDVILRPEASELSKTEFCNPAFDPEAGPSCPPPALQRDVG
/translation="MKDYDDVILRPEASELSKTEFCNPAFDPEAGPSCPPPALQRDVG
SRLQAPWHAQRLRGLQPDCHFSWFCILLLSGLLLLLLGLYAVILAQLQATSLPRTTK
SRLQAPWHAQRLRGLQPDCHFSWFCILLLSGLLLLLLGLYAVILAQLQATSLPRTTK
NPLLTRGLTPMGYIPSTTPNTTTTTTPARTGQQEAMSPTQTTCGGLLPGPSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="Clqtnf5"
/note="ClQTNF5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="Clqtnf5"
3097. .3828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="Mfrp"
52. .1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="complement-clq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note-"MFRP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 696.2; 1
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .3e-110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    factor-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
 3538
                                                                                                                                                548
                                                                                                                                                                                                          488
                                                                                                                                                                                                                                                                  428
                             899
                                                          3478
                                                                                     809
                                                                                                                  3418
                                                                                                                                                                           3358
                                                                                                                                                                                                                                     3298
                                                                                                                                                                                                                                                                                              3238
                                                                                                                                                                                                                                                                                                                                                        3178
                                                                                                                                                                                                                                                                                                                                                                                                                 3118
                                                                                                                                                                                                                                                                                                                           368
                                                                                                                                                                                                                                                                                                                                                                                     308
                                                                                                                                                                                                                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                            RESULT 10
AP001003
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                               멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                γ
                                                                                                                                                                                                                                                                                                 LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                          AUTHORS
               JOURNAL
```

```
1326
                                                                  4120
4180
                                                                                                                                        4071
                                                                                                                                                                           1209
                                                                                                                                                                                                               4012
                                                                                                                                                                                                                                                1149
                                                                                                                                                                                                                                                                                   3958
                                                                                                                                                                                                                                                                                                                    1089
                                                                                                                                                                                                                                                                                                                                                      3899
                                                                                                                                                                                                                                                                                                                                                                                         1029
                                                                                                                                                                                                                                                                                                                                                                                                                            3839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3719
                                                                                                     1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3599
                                                                                                                                                                                                                                                                                                                                                                                                                                                           969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     669
                C-----CTGGCCCAGGACTCCAAGGTGGGATGCTCCATTCCTAGTCCTGTGTCC
                                                                                                                                                           CCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTG---
                                                                                                                                                                                                                                   GGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGAGTGTGTGCTGTGCTGCGCAAGTGTAAGT 1208
                                                                                                                                                                                                                                                                                                    CGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATG
                                                                                                                                                                                                                                                                                                                                                      CAGGAGGGCTGGCCCCCTGGAATATTGTGAATGACTTAGGAAGAGAGGGAG-CCACTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTTGAGGCCTGAGGACCAAGTGTGGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGCGTCTACTTTGCTGCTGCACGCCACTGTCTACCGGGCCAGCTTGCAGTTTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATC
                                                                    CCTCTAGGTCCCTGACTCCATCTCTGCTGCTCCCAGGGCAGGCCTTTTTCTCAGAGGTCA
                                                                                                                                                                                                               GAGCAGTGGCTGGGTTTCTGCCCCAGGACTTTA-GAATGCAGTAGGCTGGCAGCTGTGGGT
                                                                                                                                                                                                                                                                                   AGTCCCACTGCTGGCAATGAATGGAGACA--GGCTGTCTGAGGTCA----AGACAGCGTG
                                                                                                                                                                                                                                                                                                                                                                                       AGGAGGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGATTTCTCGTCTATTCTGACTGGCACAGCTCCCCAGTCTTCGCTTAAAACACAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCCTCGCTCTCAGGGGGTGCGATGGTAAAGGCTAGAACCTGAGGACCAGGTGTGGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTGTCAAAAACGGGCAGTCCATCGCCTCTTTCTTCCAGTATTTTTGGGGGGGTGGCCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGTGAAGATGGCGAATCCATTGCCTTTTCTTCCAGTTTTTTCGGGGGGTGGCCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCGGAGCTGGCACTTGCTCCTCAGTGGAGGGTGTGACACTAACCCGCGCAACGCATAC
                                                                      4179
                                                                                                                                                                                                               4070
                                                                                                                                                                                                                                                                                   4011
                                                                                                                                                                                                                                                                                                                    1148
                                                                                                                                                                                                                                                                                                                                                         3957
                                                                                                                                                                                                                                                                                                                                                                                         1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        908
                                                                                                                                                                                                                                                                                                                                                                                                                            3898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3598
                                                                                                                                          4119
                                                                                                                                                                             1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 788
```

KEYWORDS SOURCE ORGANISM REFERENCE REFERENCE VERSION ACCESSION DEFINITION TITLE AUTHORS JOURNAL

1 (bases 1 to 173038)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D.,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. a
Homo sapiens 173,038 genomic DNA of 11q23
published Only in DataBase (2000)
2 (bases 1 to 173038)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D.,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. a Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; AP001003.2 HTG; HTGS_F Homo sapiens sapiens HTGS_PHASE1; sapiens DNA, SEQUENCE, GI:8117674 173038 bp DNA chromosome 11 clone RP11-680C5 HTGS_DRAFT. clone:RP11-680C5 Craniata; Vertebrata; Catarrhini; Hominidae; Hominidae; linear linear HTG 30-MAY-2000 map 11q23, WORKING and Sakaki,Y. and Hong-Seog,P., and Sakaki,Y. Euteleostomi; Homo.

Direct Submission Submitted (05-JAN-2000) Masahira Hattori,

Research (RIKEN), Genomic Sciences

The

Institute of Physical

Center (GSC);

Chemical

COMMENT

```
NOTE: This is a 'working draft' sequence. It currently consists of 28 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa Japan (E-mail:hattori@ysc.riken.go.jp, URL:http://hgp.ysc.riken.go.jp/, Tel:81-42-778-9923, Fax:81-42-778-9924)
                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fax:81-42-778-9924)
On May 31, 2000 this sequence version replaced g1:6997762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        as soon as it is
                                                                   Sequence updated (26 May-2000).

* NOTE: This is a 'working draft' sequence. It currently consists of 28 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of reads Assembly program: Phrap; version 0.990329 Consensus quality: 149676 bases at least Q40 Consensus quality: 160868 bases at least Q30 Consensus quality: 167161 bases at least Q20 Insert size: 170338; sum-of-contigs quality coverage: 4.33x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center project Information
Center project name: HumDraft11
Center clone name: RP11-680C5
                                                                                                                                                                                                                                                                                                                                                                                          102084
                                                                                                                                                                                         166758
168408
170131
                                                                                                                                                                                                                           161844
163785
165317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: hattori@gsc.riken.go.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center code: RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center: RIKEN Genomic Sciences Center(GSC)
                                                                                                                                                                                                                                                          15991
                                                                                                                                                                                                                                                                         15381
15737
                                                                                                                                                                                                                                                                                                                                                                                                                                                               15659
33790
47533
15559 15658: gap of 100 bp 11 length 33690 33789; gap of 100 bp 33790 47432: contig of 13643 bp in length 47433 47532: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                 93698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      http://hgp.gsc.riken.go.jp/
                                                            15558: contig of 15558 bp
                                                                                                                                                                                                                 168307
                                                                                                                                                                                                                                                                                                                                                                                                       11002
                                                                                                                                                                                                                                                                                                                                                                                            11811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     available and
                                                                                                                                                                             contig
                                                                                                                                                                                                              contig
                                                                                                                                                                                                                         contig
                                                                                                                                                                                                                                     conti
                                                                                                                                                                                                                                                 contig
                                                                                                                                                                                                                                                             contig
                                                                                                                                                                                                                                                                                              conti
                                                                                                                                                                                                                                                                                                                                                                                           cont1
                                                                                                                                                                                                                                                                                                                                                                                                                                       contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                            contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contig
                                                                                                                                                                                                                                                                       contig
                                                                                                                                                                                                                                                                                                                      conti
                                                                                                                                                                                                                                                                                                                                             conti
                                                                                                                                                                                                                                                                                                                                                         cont
                                                                                                                                                                                                                                                                                                                                                                   contig
                                                                                                                                                                                                                                                                                                                                                                            contig
                                                                                                                                                                                                                                                                                                                                                                                                   contig
                                                                                                                                                                                                                                                                                                                                                                                                                            conti
                                                                                                                                                                                                                                                                                    conti
                                                                                                                                                                                                                                                                                                                                  cont
                                                                                                                                                                                                                                                                                              19
                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                             the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18031
13643
                                                                                                                                                                                                                                                                                                                                                                                                                                                   15860
10742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     accession number
                                                                                                                                                                              in length
                                                                                                                                                                              in
                                                                                                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
length
length
                                                                                                                                                                                                            length
length
length
                                                                                                                                                                                                                                                                                                                   length
length
                                                                                                                                                                                                                                                                                                                                           length
length
                                                                                                                                                                                                                                                                                                                                                                           length
length
length
                                                                                                                                                                                                                                                                                                                                                                                                                           length
length
                                                                                                                                                                                                                                                                                            length
length
                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  228-8555,
                                                                                                                                                                                                                                                                        FEATURES
                         misc_feature
                                                 misc_feature
                                                                       misc_feature
                                                                                              misc_feature
                                                                                                                    misc_teature
                                                                                                                                           misc_feature
                                                                                                                                                                 misc_feature
                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 bp
153816 157273: contig of 3458 bp in
157274 157373: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101984 102083: gap of
102084 110022: cont
                                                                                                                                                                                                                                                                                  171726 171825: gap of
171826 173038: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               143897 143996: gap of 100 bp 143997 147572: contig of 3576 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        110023 110122: gap of
110123 118116: cont
                                                                                                                                                                                                                                                                                                                   170031 170130:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     147573 147672: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140230 140329:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .32137 132236:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18117 118216: gap of 100 k
18217 126464: contig of 8248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26465 126564:
                          /note="assembly_fragment" 93698. .101983
                                                /note="assembly_fragment"
85458. .93597
                                                                                                                     47533
                                                                                                                                           /note="assembly_fragment" 33790. .47432
                                                                                                                                                                                                                                     /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                 note="assembly_fragment"
                                                                                                        note-"assembly_fragment"
                                                                                                                               /note="assembly_fragment"
                                                                                                                                                                                                 /clone="RP11-680C5"
                                                                                                                                                                                                                          /chromosome="11"
                'note="assembly_fragment"
                                                                                                                                                                            note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                              159917: gap of 161743: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                       161843:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               150546:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93697: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85457: gap of 100 bp 93597: contig of 8140 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63492: gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35390: gap of 100 bp
140229: contig of 4839 b
40329: gap of 100 bp
143896: contig of 3567
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                               159817: cc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10546: gap of 100 l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150446:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            132136:
                                                                                                                                                                                                                                                                                                                                                    5757: gap of 100 bp 168307: contig of 1550 bp
                                                                                                                                                                                                                                                                                                                                                                                                     65216:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01983: contig of 8286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34: gap of 100 bp 85357: contig of 11023
                                                                                                                                                                                                                                                                                                          71725:
                                                                                                                                                                                                                                                                                                                                 .70030:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35290:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63392: contig of 15860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74234: contig of 10742
                                                                         . 85357
                                                                                                                      .63392
                                                                                                                                                                                                                                                                                                                                                                                      gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap of 100 bp
0: contig of 3054 bp in
                                                                                                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                    gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap of
                                                                                                                                                                                                                                                                                                                   gap of
                                                                                                                                                                                                                                                                                                                                           gap of
                                                                                                                                                                                                                                                                                                                                                                                                                       ap of 100 contig of 1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig of 5572
                                                                                                                                                                                                                                                                                contig
                                                                                                                                                                                                                                                                                                                              ap of 1623 b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ap of 100 bp contig of 7939 bp
                                                                                                                                                                                                                                                                                                                                                                        contig of 1341
                                                                                                                                                                                                                                                                                                                                                                                                contig of 1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    contig of 2444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig of 2774
                                                                                                                                                                                                                                                                                                       contig of 1595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    contig of 7994
                                                                                                                                                                                                                                                                                   of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                100 bp
of 1826 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       795
100 bp
~~48 bp in
                                                                                                                                                                                                                                                                                                                                                                   143.
100 bp
1341 bp in '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 bp
                                                                                                                                                                                                                                                                                                                     100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J bp
74 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ď
                                                                                                                                                                                                                                                                                                                                                                                               ر في أو
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bp
bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bp
7 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                           bp
1 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bp
9 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ďď
                                                                                                                                                                                                                                                                                                                              bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bp in length
                                                                                                                                                                                                                                                                                                         bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 фþ
                                                                                                                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                  in
                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
```

```
Ş
                                                             õ
В
                 δ
                                            밁
                                                                                      밁
                                                                                                             Š
                                                                                                                                    몽
                                                                                                                                                                                 밁
                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_teature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
nes 741; Conserv
 167237
                                                                                                                                     167057
                                                                                                                                                                                                                                 166937
                                                                                                                                                                                                                                                                             166877
                                                                                                                                                                                                                                                                                                                          166817
                                                                                                                                                                                                                                                                                                                                                                     166758
                                                                                                                                                                                                         843
                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                               664
                                                                                                                                                                                                                                                                                                                                                                                          604
                                                      TCAT-CCAGGAGGGCTGGCCCCC-TGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                    CACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGG 1022
                                                                                                                                                 CCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTTGCTTAGTGCC 962
                                                                                                                                                                                                                                                                                         TGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTTC-GGGGGGTGGC
                                                                                                                                                                                                                                                                                                                        CCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCA 663
                                                                                         CACTGCAAAGTGAGCTCATGCTCCTCAGAAGGAGGGTGTGAGGCTGACAACCTGG
                                                                                                                                     CCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCC
                                                                                                                                                                                              CCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCCTGGAGGCCTGAGGACCAAGTGT
                    GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG 1140
                                                                                                                                                                                                                               CCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGT 166996
                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="assembly_fragment"
166758. .168307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="assembly_fragment clone_end:SP6 vector_side:left"
165317. .166657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="assembly_fragment"
157374. .159817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163785.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-"assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="assembly_fragment clone_end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 143997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment"
118217. .126464
                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161844.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                159918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note-"assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note-"assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment"
110123 .118116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .50547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26565. .132136
                                                                                                                                                                                                                                                                                                                                                                                                                          50.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "assembly_fragment"
. .135290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . .147572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .143896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .16521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .163684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .161743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .153715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .140229
                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                          Score 694; DB 2;
Pred. No. 4e-110;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 694;
                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                5.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 173038;
                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vector_side:right"
                                                                                                                                                                                                                                                                                                                                                                                                              4;
                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                     842
                                                                                                                                                                                                                                                                                                  782
                                                                                                                                                                                                                                                                                                                                              723
167296
                                                                                        167176
                                                                                                                                     167116
                                                                                                                                                                                  167056
                                                                                                                                                                                                                                                                           166936
                                                                                                                                                                                                                                                                                                                        166876
                                                                                                                                                                                                                                                                                                                                                                    166816
                                                                                                                                                                                                                                                                                                                                                                                                    REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
BC025174
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                            CDS
                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     167417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            167297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        167477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 167357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NGC
MGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BC025174
                                                                                                                                                                                  analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BC025174.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         house mouse.
```

```
Clone distribution: MGC clone distribution information can be for through the I.M.A.G.B. Consortium/LIML at: http://lmage.llnl.gov Series: IRAK Plate: 61 Row: f Column: 24
This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X.,
Yoon, V.S., Kowls, C.R., Lawrence, S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (
DNA Sequencing by: Baylor College of Medicine Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NIH-MGC Project URL: he Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (05-MAR-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Strausberg, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web site: http://www.hgsc.bcm.tmc.edu/cdna/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATCACTCAATAAACCTAAGAACCCTCCTA 167506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATCACTCAATAAACCTAAGAACCCTCATA 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTTCCTGGTC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGCAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCCTTTTCTCAGA 167476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 1234)
/codon_start=1
/product="Unknown (protein for MGC:36714)"
/protein_id="AAH25174.1"
/db_xref="GI:19263584"
                                                                                                                                                          /tissue_type="Mammary tumor. Metallothionien-TGF alpha
model. 10 month old virgin mouse. Taken by biopsy."
/clone_lib="NCI_CGAP_Mam1"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                      /clone="MGC:36714 IMAGE:3978387"
                                                                                                                                    note="Vector:
                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                organism-"Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:19263583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1234 l
clone MGC:36714
                                                                                                           . 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              http://mgc.nci.nih.gov
                                                                                                                                 PCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bp mRNA linear
i IMAGE:3978387, mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hulyk, S
Martin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S.W., Hale, S.M.,
, R.G., Muzny, D.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ROD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            167416
```

Qy 1029 AGGAGGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTC 1088	Qy 969 AAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCC 1028	Qy 909 CCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGC 968	Qy 849 AGGTGGGTGACTACATTGGCATCTATGCCAGCAGCAGAAGACAGAACAGCACCTTCT 908	Qy 789 CAGCCTCGCTCTCGGGGGGGGCCCATGGTGAGGCTGGAGGACCAAGTGTGGGTGC 848	Qy 729 TGGTGAAGAATGGCGAATCCATTGCCTTTTCTTCCAGTTTTTTCGGGGGGTGGCCCAAGC 788	QY 669 CTGGGGTCTACTTCGCCGTCCATGCCACGTCTACCGGGCCAGCCTGCAGTTTGATC 728	QY 609 TGCTGGTGAACGAGGAGCAGTTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGC 668	QY 549 CCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACCCCTTCGACCGCG 608	QY 489 CCGCGGGGCCACCGGGCCTGCCGGGGAGTGCCTCCGGTGCCTCCGCGATCCGCCTTCAGCG 548	Qy 429 GCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGAGGCGGGAC 488	Qy 369 GCCGCGATGGCCGCGACGGCCGCGACGCCCCGGGGGCTCCCGGGAGAAAGGCGAGG 428	Qy 309 GCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGG 368	Qy 249 TGCTCCTGGGCCTGGCCGGCCGGCTCGCCCCACTGGACAACAAGATCCCCAGCCTCT 308	Qy 189 GAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCCTCGTCCTCC 248	Query Match 50.4%; Score 693.6; DB 10; Length 1234; Best Local Similarity 77.9%; Pred. No. 7e-110; Matches 919; Conservative 0; Mismatches 239; Indels 22; Gaps 6;	RSAFSAKRSESRVPPPADTPLPEDRVLLNEQGHEDPTTGKFTCQVPGVYYFAVHATVY RASILOEDLVKNGOSIASFFQYFEGEWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIY ASIKTDSTFSGFLYYSDWHSSPVFA" BASE COUNT 257 a 365 c 369 g 243 t ORIGIN	<pre>/translation="mrpllallllGlvsGspplddnkipslcpgQpglpgTpgHhgSQ GlpGRDGRDGRDGApGeKGEGGRPGLbGprgEpGpRGEAGPMGAIGpAGECSVpp</pre>
CDS		FEATURES Source					COMMENT		REFERENCE AUTHORS TITLE JOHRNAL	SOURCE	ACCESSION VERSION KEYWORDS	RESULT 12 BC023068 LOCUS	Db 11	بر س	سر دس د	نتو نتو ،	Db
/clone_lib="NCI_CGAP_Mam6" /lab_host="DH10B" /note="Vector: pCMV-SPORT6" 153884 /codon_start=1	лан o	e Location/Qualifiers e 1. 1271 e /organism="Mus musculus"	Series: IRAK Flate: 54 Row: b Column: 4 This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF analysis	Richards, S., Gibbs, R.A. Clone distribution: MGC clone distribution information can be found through the T.M. C. Concerting TIME at http://image.llpl.gov	Web site: http://www.hgsc.bcm.tmc.edu/cdna/ Web site: http://www.hgsc.bcm.tmc.edu/cdna/ Contact: amg@bcm.tmc.edu Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Hale, S.M., Yoon V S Kowis C P Laurence S Martin P G Morny D M		Contact: MGC help desk Email: cgapbs-r@mail.nih.gov Tissue Procurement: Jeffrey Green M.D. Charles Brocker Green M.D.	ce, National hesda, MD 2	Kamma 1	house mouse. house mouse. Mus musculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia: Eutheria: Endentia: Sciurografhi: Muridae: Murinae: Musc	IMAGE: 335789, mRNA, complete cds. BC023068 BC023068.1 GI:18605993 MGC	BC023068 1271 bp mRNA linear ROD 07-AUG-2002			CCCCCAGTTGCTCTGGTCCAGGACCCACGGTGGGTCTCTTTCCTGGTCCTCTG	GGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGTGT	

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 916; Conserv
                                                                                                      835
                                                                                                                                                                                           849
                                                                                                                                                                                                                                                                                 655
                                                                                                                                                                                                                                                                                                                                           595
                                                                                                                                                                                                                                                                                                                                                                                                                                                        475
                                                                                                                                                                                                                       715
                                                                                                                                                                                                                                                  789
                                                                                                                                                                                                                                                                                                            729
                                                                                                                                                                                                                                                                                                                                                                     669
                                                                                                                                                                                                                                                                                                                                                                                                535
                                                                                                                                                                                                                                                                                                                                                                                                                             609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 249
AGGAGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTC
                                                                                                 CTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCTCCTGGGCCTGGCGGCCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAGGACCCCGGCGTCCCGGGTCCCGGTGCCAGCGCTATGAGGCCACTCCTCGTCCTGC
                                                                   AAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCC
                                                                                                                                                                          AGGTGGGTGTGGGTGACTATGGCATCTATGCCAGCATCAAGACAGCAGCACCTTCT
                                                                                                                                                                                                                                                  CAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGGCCCTTCGACCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCATGGGGGCTATCGGGCCTGCGGGGGGAGTGCTCGGTACCCCCACGATCAGCCTTCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGCGATGGCCGCGACGCCGACGGCGCCCCGGGGCTCCGGGAGAGAAAAGGCGAGG
                                            ACCCGGAGCTGGCACTTGCTCCTCAGTGGAGGGTGTGACACTAACCCGCGCAGCGCATAC
                                                                                                                                                             TGCTGCTAAATGAGCAGGGCCATTTCGACCCCACTACTGGCAAGTTCACCTGCCAAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                          TGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAAGCGATCCGAGAGCCGGGTACCTCCGCCAGCCGACACCCCCTACCTTTCGACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCGGGCCACCCCGGCCTTCCAGGCACGCCACCGATGGCAGCCAGGGCTTGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCTTCTGGGTCTGGTCAGGCTCTCCTCCTCTGGACGACAACAAGATCCCCAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGAGCTCCGGGAGAGAAAGGCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="AAH23068.1"
/db_xzef="GI:18605994"
/db_xzef="GI:18605994"
/translation="MRPLALLLIGLYSGSPPLDDNKIPSLCPGQPGLPGTPGHHGSQ
GLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGEPGPRGEAGPMGAIGPAGECSVPP
RSAFSAKRSESRVPPPADTPLPFDRVLLNEQGHFDPTTGKFTCQVPGVYYFAVHATVY
RASLCDFDLYKNQSIASFGVPGMPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIY
ASIKTDSTFSGFLYYSDWHSSPVFA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="Similar to DKFZP586B0621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ဂ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 691.2; DB 10
Pred. No. 1.8e-109;
0; Mismatches 238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          378 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           260 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                      1028
                                                                                                   894
                                            954
                                                                                                                                                              834
                                                                                                                                                                                                                       774
                                                                                                                                                                                                                                                  848
                                                                                                                                                                                                                                                                              714
                                                                                                                                                                                                                                                                                                         788
                                                                                                                                                                                                                                                                                                                                                                                             594
                                                                                                                                                                                                                                                                                                                                                                                                                          899
                                                                                                                                                                                                                                                                                                                                                                                                                                                       534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           174
                                                                                                                                                                                                                                                                                                                                        654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       248
```

δ β

Š 밁 5 ₽ Ş

В δ 멍

õ В Ş 뫄

δõ 밁 õ 밁 δ 뫄 δ 밁 Š 뫄 Ş В δ В

Ş

```
TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and Chemical Research (RIKEN), Genomic Sciences Cen Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanaga Japan (E-mail:hattori@gec.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923, Fax:81-42-778-9924)
On May 31, 2000 this account.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (Dases 1 C. 2007)

Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hung-scuy,...,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y.

Direct Submission 1. Totoki,Y., Watanabe,H. and Sakaki,Y.

Direct Submission 2. Totoki,Y.

Direct Submission 
NOTE: This is a 'working draft' sequence. It currently consists 42 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the game of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. i Homo sapiens 198,902 genomic DNA of 11q23 Published Only in DataBase (2000)

2 (bases 1 to 198902)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AP001156
AP001156.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AP001156 198902 bp DNA linear HTG Homo sapiens chromosome 11 clone RP11-657A24 map 11q23, DRAFT SEQUENCE, 42 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 198902)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCAATAAACCTAAGAACCCTCATAAAAAAAAAAAA 1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGACTGTGCTGCTGCCTAGGTGTAAGT 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCCCACTGCTGGCAATGAATGGAGACA--GGCTGTCTGAGGTCA----AGACAGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTAATAAACCTAAAATCCTCAAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C-----CTGGCCCAGGACTCCAAGGTGGGATGCTCCATTCCTAGTCCTGTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCAGTGGCTGGGTTTCTGCCCCAGGACTTTA-GAATGCAGTAGGCTGGCAGCTGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTCTAGGTCCCTGACTCCATCTCTGCTGCTCCCAGGGCCAGGCCTTTTTCTCAGAGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCTTCCTGGTCCTCTG---
                                                                                                                                                                                                                                                                                            Sequencing vector: PCR products; 100% of reads Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of Assembly program: Phrap; version 0.990329 Consensus quality: 171788 bases at least 040 Consensus quality: 184443 bases at least 020 Consensus quality: 191295 bases at least 020 Insert size: 194802; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Quality coverage: 4.12x in Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center: RIKEN Genomic Sciences Center(GSC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HTGS_PHASE1; HTGS_DRAFT. sapiens DNA, clone:RP11-657A24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:8118724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                             bases;
                                                                                                                                                                                                                                                       sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kanagawa 228-8555,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , Hong-Seog, P., and Sakaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gi:6997842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WORKING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1013
                                                                                                                                                              of.
```

```
181705 183951 contig of 2247 bp in length
184052 185927 contig of 1876 bp in length
186028 187870 contig of 1843 bp in length
187971 189591 contig of 1621 bp in length
189692 191169 contig of 1621 bp in length
191270 192527 contig of 1258 bp in length
191270 192527 contig of 1258 bp in length
192628 194288 contig of 1661 bp in length
194389 195658 contig of 1270 bp in length
194389 195658 contig of 1949 bp in length
195759 197707 contig of 1949 bp in length
195759 19707 contig of 1949 bp in length
197808 198902 contig of 1949 bp in length
197808 198902 contig of 1949 bp in length
197808 198902 contig of 1949 bp in length
197808 19802 contig of 1949 bp in length
197808 197807 contig of 1949 bp in length
198808 198807 contig of 1949 bp in leng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     as soon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                are unknown.
                                                                                                                                                                                                                      arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                            66805
66905
73971
                                                74071
                                                                                                                                                    41132 41231:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               407
                                      *** op in 100 bp in 458 59457: contig of 9612 bp in 458 5957: gap of 100 bp in 105 66904: contig of 7247 bp in 1 105 66904: gap of 100 bp in 1 71 74070: gap of 100 bp in 1 8 1007: contig of 7066 bp in 1 8 8 8 1107
  81107: gap of 100 bp
87320: contig of 6213 bp
87420: gap of 100 bp
93250: contig of 5830 bp
                                                                                                                                                           20627: contig of 20627 bp in length 20727: gap of 100 bp 31817: contig of 11090 bp in length 31917: gap of 100 bp 41131: contig of 9214 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This record will be up
t is available and the
                                                                                                                                        231: gap of 49745: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18783
                              100 bp 107: contig of 6937 b gap of 100 kg
                                                                                                                                  P of 100 b
contig of 8514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig
contig
contig
contig
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cont.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cont.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cont.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ū
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ρ
 100 bp
3 of 5830 b
                                                                                                                                                                                                                                                                                                                             J bp
14 bp J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                updated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     accession
                                                                                                                                                                                                                                                                                                                            in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             with the finished sequence
                                                                                                               length
                        length
                                               length
                                                                                           length
                                                                                                                                       length
                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
length
length
length
length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Leng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lengt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     will be
                                                                                           FEATURES
             misc_feature
                                                                                 source
                                                                                                                                                                                                                                                                                                                179976 181604: contig
181605 181704: gap of
81705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98066 1022-102942 103041: gap of 102942 109017: cont
                                                                                                      197808
                                                                                                                                                                      192528 192627: gap of
192628 194288: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              144028 144127: gap of 144128 147923: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55445 155544: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  140586 140685:
                                                                                                                                                                                                                                                                                                                                                                         77915 178014:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24242 124341:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97966 98065:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13392 113491: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                       2049 172148:
                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
                                                                                           Location,
note="assembly_fragment"
                        'clone="RP11-657A24"
                                   /map="11q23"
                                                                                                                                                                                                                                                         187970:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           163003:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   158821: gap of 162903: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     148023:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93350:
                                                                                 .198902
                                                                                                                                                                                     .31269: gap of 1
192527: cr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     )3350: gap of 100 pp
97965: contig of 4615 b
)8065: gap of 100 bp
102941: contig of 4876 r
                                                                                             198902: cc
                                                                                                                                                                                                                                                                                                                                                    179875: rr
997"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    152461: contig of 4438
                                                                                                                                                                                                                                                                                                                                                                                                           2148: gap of
175332: cont
                                                                                                                                                                                                                                                                                                                                                                                                                               9951: gap of 100 l
172048: contig of 2097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9866: gap of 100 135473: contig of 5607
                                                                                                                                                                                                                                                                                                                                                                                     177914:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        144027:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9117: gap of
113391: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140585:
                                                                                                                                                                                                                                           7970: gap of 100 189591: contig of 1621
                                                                                                                                                                                                                                                                027: gap of
87870: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                166121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155444:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         118783
                                                                                                                             97707
                                                                                                                                                                                                                                                                                                                                                                                                                                                         .69851:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29766:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24241:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap of
56: contig of
                                                                                          02: contig
                                                                                                                        gap of 1)7: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gap of
                                                                                                                                                                                                                                                                                                   gap of
                                                                                                                                                                                                                                                                                                                                                                                               gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gap of 100 ll: contig of 3118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap of
                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap of
                                                                                                                                                                                                                                                                                                           ap of 100 i contig of 2247
                                                                                                                                                                                                                                                                                                                                                                              contig of 2482
                                                                                                                                                                                                                                                                                                                                                                                                       contig of 3184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ap of 100 bp contig of 5012 bp
                                                                                                                                                 contig of 1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            contig of 2883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig of 5292
                                                                                                                                                                                                                                                                                      contig of 1876
                                                                                                                                                                                                                                                                                                                                                         contig of 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig of 3177
                                                                                                                                                                                             contig of 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig of 3342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contig of 5358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   contig of 5976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 bp
                                                                                                                                                                                                                                                                                                                                      of 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 k
of 3796
                                                                                                      of
                                                                                                                                                                                                                                                                   of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of
                                                                                                                                                                          of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of 4274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 bp
                                                                                                                                                                    ط
مو
م
                                                                                                                                                                                                                                        م ولم
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ر ط ر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ر مورد
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ٷ
ٷ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ģ
                                                                                                                                                                                                                                                                                                                                 و م
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dq qq
                                                                                                                                                                                                                                                                                         bp
in
                                                                                                                                                                                                                                                                                                                                                                                                          bp
4 bp in
                                                                                                                                                               đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dq
                                                                                                                                                                                                           đđ
                                                                                                                                                                                                                                  dq
                                                                                                                                                                                                                                                                                                                           đđ
                                                                                                                                                                                                                                                                                                                                                                         đđ
                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                             đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         đď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in
                                                                                                                                                                                                                       ģ
                                                                                                                                                                                                                                                                                                                                                            bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bp in
                                                                                                                                                  bp in
                                                                                                                                                                                               hp in
                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                bp in
                                                                                                                                                                                                                                                                                                                                                                                    bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                  bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           bp in
                                                                                                                            'n
                                                                                                                                                                                                                       ij
                                                                                                                                                                                                                                            in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ĺn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĺn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in
                                                                                                     in
                                                                                                                                                                         in
                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                                      Í'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                     length
                                                                                                                            length
                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                         length
                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
```

```
REFERENCE
AUTHORS
                                                                                              SOURCE
ORGANISM
                                                                                                                                                                                                          RESULT 1
AC112557
                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                               д
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                     ACCESSION
                                                                                                                                                                                DEFINITION
                                                                                                                                                                                              FOCUS
                                                                                                                         KEYWORDS
                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         194689
                                                                                                                                                                                                                                                                 194989
                                                                                                                                                                                                                                                                                                                       194929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194389
                                                                                                                                                                                                                                                                                                                                                                            194869
                                                                                                                                                                                                                                                                                                                                                                                                                                  194809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     194749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     194509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   614;
Muzny,D.M., Adams,C., Adio-Oduola,B., Ali-osman,F.R., Allen,C., Alsbrooks,S.L., Amaratunge,H.C., Are,J.R., Ayele,M., Banks,T., Barbaria,J., Benton,J., Bimage,K., Blankenburg,K., Bonnin,D.,
                                                                                                                           HTG;
                                                                                                                                                                               AC112557 173657 bp Rattus norvegicus clone CH230-904,
                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                              Rattus norvegicus
                                                                                                                                       AC112557.2 GI:21735369
                                                                                                           Norway rat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                          CCTAAGAACCCTCATA 1350
                                                                                                                                                                                                                                                                                                                  GCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCT 1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGCTGGATTTCTGCCCAAGACCAGAAGGAGTGTGCTGTGCTGGCAAGTGTAAGTCCCCCA 1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAG 1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAGCACCACCTTCTCCGGAT 194568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCTCTCGGGGGGGCCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGG 194508
                                                                                                                                                                                                                                                                                                                                                                         TGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGGCAAGTGTAAGTCCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAGCAGCACCTTCTCCGGGAT 914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAGTGTGGGTGCAGGTGG
                                         (bases 1 to 173657)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCTCATGCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGG
                                                                                                                                                                  unordered
                                                                                                                           HTGS_PHASE1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment clone_end:SP6 vector_side:right"
41232. .49745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20728. .31817
/note="assembly_fragment"
31918. .41131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="assembly_fragment"
                                                                                                                                                               pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44.5%;
                                                                   Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 612.8;
Pred. No. 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                  Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.8e-96;
                                                                                                                                                               DNA IIDear .... *** SEQUENCING IN PROGRESS ***,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 198902;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                    1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        974
                                                                                                                                                                                                                                                                                                                                                                                                                               194868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   194808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        194748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           194688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              194628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
```

JOURNAL REFERENCE AUTHORS

TITLE

TITLE

JOURNAL

REFERENCE AUTHORS

TITLE JOURNAL

COMMENT

NOTE: Batimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 72 contigs. The true order of the pieces

order in

```
Carron, T. F., Carter, M., Cavasos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Claveland, C.D., Cox, C., Coyle, M. D., Dathorne, S.R.; David, R., Dilland, R., L., Ding, Y., Dinh, H. H., Dauthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edwards, C., Harris, K., Harth, M., Havidak, P., Hawes, A., Hernandez, J., Hoguson, A., Hogues, M., Holloway, C., Hollins, B., Hernandez, O., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Landhart, K., Harris, C., Lewis, L., Korvah, J., Kovar, C., Karisson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karisson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karisson, E., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Loulseged, H., Li, J., Liu, W., Loulseged, H., Massey, E., Mawhiney, E., McLeod, M.P., Maador, M., Martinez, E., Massey, E., Mawhiney, E., McLeod, M.P., Maador, M., Martinez, E., Massey, E., Mawhiney, E., McLeod, M.P., Maador, M., Morgan, M., Morris, S., Moser, M., Noledon, R., Pacc, A., Payton, B., Peerey, J., Perez, L., Peters, L., Oulles, M., Ren, Y., Pickens, R., Parlmus, E., Puj, L.L., Quiles, M., Ren, Y., Rives, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G., Scher, S., Sott, G., Shen, H., Shooshtari, N., Sisson, I., Sodergren, E., Sonaike, T., Sparks, A., Tamerisa, A., Tamerisa, K., Tang, H., Shoe, H., Shooshtari, N., Sisson, I., Walson, D., Watlington, S., Watler, N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (14-JUL-2002) Human Genome Sequencing of Molecular and Human Genetics, Baylor College Baylor Plaza, Houston, TX 77030, USA On Jul 12, 2002 this sequence version replaced 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (22-FEB-2002) Human Genome Sequencing Center, Depa. of Molecular and Human Genetics, Baylor College of Medicine, Baylor Plaza, Houston, TX 77030, USA 3 (bases 1 to 173657)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished 2 (bases 1 to 173657)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Buhay, C., Burch, P., Burkett, C., Burrell, K.L., Byrd,
Sequencing vector: Plasmid;
Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 105614 bases at least Q40
Consensus quality: 111210 bases at least Q30
Consensus quality: 115587 bases at least Q30
                                                                                                                                                                                                                                                                                                                                                                               Web site: http://www.hgsc.bcm.tmc.edu/Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center: Baylor College of Medicine Center code: BCM
                                                                                                                                                                                                                                                                                                          Center clone name: CH230-904
                                                                                                                                                                                                                                                                                                                                                 Center project name: GKAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Burrell, K.L., Byrd,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gi:18860143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center, Department of Medicine, One
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bryant, N.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Department
```

```
arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
             20292
20292
21644
221744
222847
22847
22408
26506
26506
26506
26506
26707
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
27717
2771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11156
11256
112569
12669
13705
13705
13705
113705
113705
113705
114932
15032
15032
15032
15032
15032
15032
17859
17859
17959
17959
17959
17959
41698:
41798:
43155:
43255:
45193:
45293:
47217:
47317:
49231:
                                                                                                                                                40293:
40393:
                                                                                                                                                                            36404:
36504:
37957:
38057:
                                                                                                                                                                                                                                          34863
                                                                                                                                                                                                                                                                                                                                                            28976:
                                                                                                                                                                                                                                                                                                  31650
                                                                                                                                                                                                                                                                                                                                              30019
                                                                                                                                                                                                                                                                                                                                 0119
            gap of contig                                                                                                                                                                                                                                                                                                                                                                                                                     gap of contig gap of contig gap of contig gap of contig gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gap of contig                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gap of contig gap of contig gap of contig gap of contig gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gap of
contig
gap of
                                                                                                                                                                                                                                                     gap of
contig
gap of
contig
                                                                                                                                                                                                                                                                                                               contig
gap of
contig
gap of
contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap of contig
                                         unknown
of 1357
unknown
of 1938
unknown
of 1924
                                                                                                                                                                                                                                                     unknown
of 1478
unknown
of 1535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
of 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
of 1117
unknown
of 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unknown
of 1164
                                                                                                                               of 1305
                                                                                                                                                             of 2236
                                                                                                                                                                                          unknown
of 1453
                                                                                                                                                                                                                        unknown
of 1541
                                                                                                                                                                                                                                                                                                                                           unknown
of 1043
                                                                                                                                                                                                                                                                                                                                                                        unknown
of 1060
                                                                                                                                                                                                                                                                                                                                                                                                                                   unknown
of 1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unknown
of 1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unknown
of 1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unknown
of 1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unknown
of 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of 1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unknown
of 1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
of 1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
of 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
of 1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unknown
of 1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of
                                                                                                                                                                                                                                                                                                                of 1431
                                                                                                                                                                                                                                                                                                                                                                                                       0f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of 1137
                                                                                                                                                                                                                                                                                                                                                                                                                       unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length,
                                                       bp in l
                                                                     bp in length
                                                                                                                 bp in l
                                                                                                                                                                                        bp in length
                                                                                                                                                                                                                         length
bp in
                                                                                                                                                                                                                                                     bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
bp in ]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
bp in l
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bp in
length
                                                                                                                                                              dq
                                                                                                                                                                                                                                                                                                                ďď
                                                                                                                                                                                                                                                                                                                                           φ
                                                                                                                                                                                                                                                                                                                                                                        ďď
                                                                                                                                                                                                                                                                                                                                                                                                                                     ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ďď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ďď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ďď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          dq
                                           g
                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
             đđ
                                                                                                                                                  length
                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
             length
bp in !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
            length
                                        length
                                                                       length
                                                                                                                                 length
                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ,length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                   length
                                                                                                                                                                                            length
                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                    δÃ
                                                                                     밁
                                                                                                                                             밁
                                                                                                                                                                         δÃ
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                 Ó
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 78.9
Matches 717; Conservative
                                                                                       44065
                                                                                                                                                44005
                                                                                                                                                                            678
                                                                                                                                                                                                                                       618
                                                                                                                                                                                                      TCTCGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAGTGTGGGTGCAGGTGCGTG
                                                                                     ATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTTCGGGGGGTGGCCCAAGCCCAGCCTCGC
                                                                                                                                                ACTACTTTGCTGTCCATGCCACTGTCTACCGGGCCAGCCTACAGTTTGATCTTGTCAAAA
                                                                                                                                                              ACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGA
                                                                                                                                                                                                                                                                                                                              CTATCGGGCCTGCGGGGGAGTGCTCGGTGCCCCCACGATCAGCCTTCAGTGCCAAGCGAT
                                                                                                                                                                                                                                                                                                                                            CCACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCT
                                                                                                                                                                                                                                                                                                                                                                                         CAGGACTACCTGGGCCACGTGGGGAGCCCGGGCCGCGTGGAGAGGCAGGACCTGTGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                      CGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGGAGAGAGGCGGGACCCGCGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            $1333
$1330
$1330
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
$1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                               37.3%;
78.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79106:
79206:
83551:
83651:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88659:
88759:
90078:
90178:
92201:
92301:
92301:
94877:
94977:
96946:
97046:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62818
64976
65076
67855
67955
71313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73659:
73759:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  75649:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 513.4; DB 2;
Pred. No. 5.2e-79;
0; Mismatches 171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unknown
of 1969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
of 2576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               unknown
of 2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unknown
of 1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
of 2506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unknown
of 2402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
of 4345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
of 3457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unknown
of 1790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unknown
of 3358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unknown
of 2779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unknown
of 1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
of 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
of 2246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unknown
of 2158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
of 2325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
length
length
length
length
bp in length
length
bp in length
length
bp in length
length
length
length
length
length
length
bp in length
length
bp in length
length
bp in length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bp in length bp in length bp in length bp in length bp in length bp in length bp in length bp in length bp in length bp in length bp in length bp in length bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                 21;
```

Gaps

8

497

557 43824

917 44184 44064

797

44124

44004

617 43884

Db	Qy	Db	Qy	Db	Qy	дь	Qy	ДĎ	Qy	DЪ	Qy	Db	Qy	Db	Qy	Db	Qy	DЪ
721 GINTIYGC 728	947 GTCTTTGC 954 .	661 ATHAARACNGAYWSNACNTTYWSNGGNTTYYTNGTNTAYWSNGAYTGGCAYWSNWSNCCN 720	887 ATCAAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA 946	601 CCNGARGAYCARGTNTGGGTNCARGTNGGNGTNGGNGAYTAYATHGGNATHTAYGCNWSN 660	827 CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGGGTGACTACATTGGCCATCTATGCCAGC 886	541 TTYTTYGGNGGNTGGCCNAARCCNGCNWSNYTNWSNGGNGGNGCNATGGTNWGNYTNGAR 600	767 TITTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGG	481 MGNGCNWSNYTNCARTTYGAYYTNGTNAARAAYGGNGARWSNATHGCNWSNYTTYTTYCAR 540	707 CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTT	421 GGNAARTTYACNTGYCARGTNCCNGGNGTNTAYTAYTTYGCNGTNCAYGCNACNGTNTAY 480	647 ggcaagtreacergeeaggreergegggretactactregeeggreeageeageegretae 706	361 GCNCCNYTNCCNTTYGAYMGNGTNYTNGTNAAYGARCARGGNCAYTAYGAYGCNGTNACN 420	587 GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGGACATTACGACGCCGTCACC 646	301 CCNCCNMGNWSNGCNTTYWSNGCNAARMGNWSNGARWSNMGNGTNCCNCCNCCNWSNGAY 360	527 CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC 586	241 GGNCCNMGNGGNGARGCNGCNGCNGCNGCNGCNGCNGCNGCNGCNGARTGYWSNGTN 300	467 GGGCCGCGAGGAGGGGGGGCCCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG 526	181 GCNCCNGGNGARAARGGNGARGGNGGNMGNCCNGGNYTNCCNGGNCCNMGNGGNGAYCCN 240

Search completed: June 21, 2003, 10:48:40 Job time: 3729 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                               1375.4
                                                                                                                                                                                                                     Query
Match
        100.0
100.0
100.0
100.0
100.0
99.9
96.0
94.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         June 21, 2003, 03:38:34; Search time 368 Seconds (without alignments) 8426.635 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2185239 seqs, 1125999159 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-944-944-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N_Geneseq_101002:*
1: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1981.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                     3: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA198.DAT:*
10: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA198.DAT:*
11: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
12: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
13: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
14: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
15: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
16: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
16: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
17: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
18: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
19: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
19: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA199.DAT:*
20: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA109.DAT:*
21: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:*
23: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:*
23: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1982.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1983.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1985.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1985.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1986.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1987.DAT:*
                                                                                                                                                                                                                        Length
                                                 1377
1377
1377
1377
1377
1377
1377
                                                                                                                                                                                                                        DВ
           22222220
                                                                                                                                                                                                                        ij
                        AAX87258
AAX80052
AAD01241
AAA46907
AAA49560
AAS21424
AAC58626
AAX24684
                                                                                                                                                                                                                                                                                    SUMMARIES
cDNA clone encodin
Human PRO344 nucle
Human PRO344 prote
cDNA encoding nove
Human PRO344 cDNA.
Human CDNA sequenc
Human PRO344 prote
Human adipocyte-sp
Human TANGO 253 co
                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10
12
13
14
16
```

10 1395 94.0 1338 22 APF44996 Human secreted pro	RES AAAXX AAAXX AAAXX AAAXX AAAXX AAAXX AAAXX AAAXX AAAXX AAAAXX AAAAXX AAAAAA	
1295 94.0 1338 22 AAF44999 1295 94.0 1338 22 AAF44991 1295 94.0 1338 22 AAF44991 1296 14.0 1338 22 AAF45901 1297 1298 22 AAF45901 1297 1298 22 AAF44991 1298 1298 1298 1298 1298 1298 1298 1298	AAX AAX AAX CDN PRO PRO PRO PRO PRO PRO PRO PRO O DS CDS CDS CDS CDS CDS CDS CDS CDS CDS C	11111111111111111111111111111111111111
.0 1338 22 AAF44598 Human secrete .0 1338 22 AAF44599 Human secrete .0 1338 22 AAF44599 Human secrete .0 1338 22 AAF45901 Human secrete .0 1338 22 AAF45901 Human secrete .0 1348 22 AAF45901 Human secrete .0 1768 23 AAF45901 Luman secrete .0 1788 22 AAF44997 Human secrete .0 1788 22 AAF44995 Human secrete .0 1788 22 AAF44995 Human secrete .0 1788 22 AAF44996 Human secrete .0 1788 22 AAF44996 Murine secrete .0 1001 22 AAF45909 Murine secrete .0 1001 22 AAF45909 Murine secrete .0 1001 24 AB13470 Murine secrete .0 1001 24 AB13477 Murine secrete .0 1001 25 AAF45909 Murine secrete .0 1001 26 AAF45909 Murine secrete .0 1001 27 AAF45909 Murine secrete .0 1001 28 AAF45909 Murine secrete .0 1001 29 AAF45909 Murine secrete .0 1001 20 AAF45909 Murine secret	7258 st 7258; 7258; Clone clone sapien sapien sapien sapien 1000 1000 1000 1000 1000 1000 1000 10	11122 5555 66921122 1122 55669211 712 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 1122955 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112295 112
1338 22 AAF44999 Human secrete 2348 24 AAF45001 Human secrete 2348 24 AAF45001 Human secrete 2348 24 AAF44997 Human secrete 2348 25 AAF44997 Human secrete 2348 25 AAF44997 Human secrete 2348 26 AAF44997 Human secrete 2348 27 AAF44997 Human secrete 2348 27 AAF44995 Human secrete 2348 27 AAF44972 Human secrete 2348 27 AAF44972 Human secrete 2348 27 AAF44972 Human secrete 2348 27 AAF45000 Murine secrete 2348 28 AAF44973 Murine secrete 2348 27 AAF45001 Rat cDNA isol 234 AAF45004 Murine secrete 2348 27 AAF45001 Rat cDNA isol 235 27 AAF45001 Rat cDNA isol 236 27 AAF45001 Murine secrete 236 28 AAF45001 Murine secrete 2370 27 AAF45001 Murine secrete 238 27 AAF45001 Rat cDNA isol 238 27 AAF45001 Murine secrete 239 27 AAF45001 Murine secrete 239 28 AAF45001 Murine secrete 239 28 AAF45001 Murine secrete 239 29 AAF45001 Rat cDNA isol 230 24 ABL34716 Murine secrete 230 24 AAF45001 Murine secrete 230 25 AAF45001 Murine secrete 230 26 AAF44991 Murine secrete 230 27 AAF45001 Murine secrete 230 27 AAF45001 Murine secrete 230 27 AAF45001 Murine secrete 230 28 AAF45000 Murine secrete 230 27 AAF45001 Murine secrete 230 28 AAF45000 Murine secrete 230 27 AAF45000 Murine secrete 230 27 AAF45000 Murine secrete 230 27 AAF45000 Murine secrete 230 28 AAF45000 Murine secrete 24 AAF45000 Murine secrete 25 AAF45000 Murine secrete 26 AAF45000 Murine secrete 27 AAF45000 Murine secrete 27 AAF45000 Murine secrete 28 AAF45000 Murine secrete 28 AAF45000 Murine secrete 29 AAF45000 Murine secre	10 10 10 10 10 10 10 10 10 10 10 10 10 1	
### Human secrete 22 AAF44999 ### Human secrete 23 AAF44999 ### Human secrete 24 AAF45001 #### Human secrete 25 AAF45001 #### Human secrete 26 AAF45001 #### Human secrete 27 AAF44991 #### Human secrete 28 AAF44997 #### Human secrete 29 AAF44997 #### Human secrete 20 AAF44997 #### Human secrete 21 AAF44996 #### Human secrete 22 AAF44996 #### Human secrete 23 AAF45000 ##### Human secrete 24 AAF45000 ##################################	8888 0 +247470 5 9 4	
AAF44999 Human secrete AAF44999 Human secrete AAF45001 Human secrete AAF45001 Human secrete Human secrete Human secrete Human secrete Human secrete DA AAF46901 AAF44997 AAF44997 AAF44997 AAF44996 Human secrete DA AAF44996 Human secrete AAF44996 Human secrete AAF44996 Human secrete Human secrete AAF45006 AAF45007 Murine secrete Human secrete Human secrete AAF45009 AAF45	555 55 maara 44;	1338 1338 1338 1338 1338 1338 1334 1334
AF44998 AF44999 AF44999 AF44900 AF44999 AF44901 AF44997 AF44997 AF44997 AF44996 AF44997 AF44997 AF44996 AF44997 AF44997 AF44997 AF44996 AF44997 AF44997 AF44906 AF44906 AF44907 AF44907 AF44907 AF44908 AF44908 AF44909 AF4490 AF44909 AF4490 AF40		22222222222222222222222222222222222222
Human secrete Human secrete Human secrete Human secrete Human secrete DNA encoding cDNA sequence Human TANGO 2 Human secrete Murine secret	BP. ; 44,	AAF44998 AAF445001 AAF45000 AAF45001 AAF45011 AAL39624 AAF44971 AAF44997 AAF44995 AAF44995 AAF445009 AAF45009 AAF45009 AAF45007 AAF45009 AAF45009 AAF45009 AAF45009 AAF45009 AAF45009 AAF45009 AAF45009 AAF45009 AAF45009 AAF4501635 AAF44911 AAF45040 AAF45038 AAF45040 AAF45038 AAF45040 AAF45038 AAF45040 AAF45038 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF45040 AAF450 AAF450 AAF450 AAF450 AAF450 AAF450 AAF450 AAF450 AAF450 AAF450 A
	fied in tumour cells is; therapy; human;	Human secrete Human secrete Human secrete Human secrete Human secrete Human secrete DNA sequence Human secrete Murine secret Murine secret Murine secret CDNA encoding Skin cell cDN Rat cDNA isol CDNA encoding Skin cell cDN Rat cDNA isol Human colon GHUMA encoding Skin cell cDN Rat GDNA secret Murine secret

```
Š
                     B
64
                                                                    밁
                                                                                      Qy
                                                                                                               밁
                                                                                                                                     δÃ
                                                                                                                                                            밁
                                                                                                                                                                                  5
                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                          δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This is the nucleotide sequence of cDNA clone DNA40592 (ATCC 209492) coding for human PRO344 (UNQ303) (see AAY06481). The clone was isolated from a foetal kidney library. Amplification of DNA40592 was observed in primary lung tumours and in primary colon tumours, suggesting an association with tumour formation or growth. Antagonists (e.g. antibodies) directed against PRO344 may have utility in cancer therapy. The invention identifies 14 genes (see AAX87254-67) that are amplified in the genome of tumour cells. Such amplification is expected to be associated with overexpression of the gene product and to contribute to tumorigenesis. The encoded proteins (see AAX06477-90) may be useful targets for the diagnosis and/or treatment (including prevention) of certain cancers, and may act as predictors of the prognosis of tumour treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1377 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antibody against proteins expressed tumor diagnosis and treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Botstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-JUN-1998;
10-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1999-430385/36.
DB; AAY06481.
  541
                                                                                                                                                                                                                                       241
                                                                       421
                                                                                              421
                                                                                                                       361
                                                                                                                                             361
                                                                                                                                                                    301
                                                                                                                                                                                           301
                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                               181
                        481
                                               481
                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; F1g
                       GCCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                 GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                            CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                      GACTAGTTCTCTTTGGAGTCTGGGAGGGAGGAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
  CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                 AGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                            TGGGGTGACGGCAGGGGGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                      AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCGGGGCCGCGAGGAGA
                                                                                                                     CAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                          GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard
od WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0088742
98US-0107783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      251 A; 422 C; 472 G; 232 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               162pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1377; DB 20;
Pred. No. 1.7e-244;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΑĿ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neoplastic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ζ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lawrence
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cells,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                             480
                        540
                                                                     480
                                                                                                                     420
                                                                                                                                             420
                                                                                                                                                                   360
                                                                                                                                                                                          360
                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                60
```

```
Q
                              멍
                                             δð.
                                                             밁
                                                                           δã
                                                                                                           ğ
                                                                                                                            밁
                                                                                                                                         Š
                                                                                                                                                           밁
                                                                                                                                                                       δÃ
                                                                                                                                                                                          밁
                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
밁
                                                                                             밁
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
               1321
                               1261
                                                                                              1141
                                                                                                             1141
                                                                                                                             1081
                                                                                                                                            1081
                                              1261
                                                             1201
                                                                              1201
                                                                                                                                                            1021
                                                                                                                                                                           1021
1321
                                                                                                                                                                                          961
                                                                                                                                                                                                          961
                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                     601
GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                          GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                        CCAGGTCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                     GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                     GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                          GCCCAAGCCAGCCTCGCCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                     CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                     GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                              GCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                             GCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                          CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                         GCCCAAGCCAGCCTCGCTCGCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                        1260
                                                                                             1200
                                                                                                              1200
                                                                                                                             1140
                                                                                                                                            1140
                                                                                                                                                            1080
                                                                                                                                                                           1080
                                                                                                                                                                                           1020
                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                     . 720
                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                       7.80
                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                     600
```

```
RRESULT 2
AAX80052
ID AAX8
XX AX8
AC AAX8
AC AAX8
AC AAX8
AC AAX8
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Homo
OS Homo
OX W099
XX W099
                                                                                                     AAX80052;
                                                                                                                     AAX80052
                                                                                    12-AUG-1999
                                                                                                                     standard;
                                                                                    (first
                                                                                                                     CDNA;
                                                                                    entry!
                                                                                                                     ВP
```

Human; PRO secreted pr RO protein; tumour necrosis protein; transmembrane prot osis factor family; TNF; cytokine; protein; inflammation disorder; s

Human

PRO344

nucleotide sequence

```
Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-1997;
05-JAN-1998;
09-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-DEC-1997;
16-DEC-1997;
16-DEC-1997;
16-DEC-1997;
16-DEC-1997;
17-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes nucleic acids encoding PRO secreted and transmembrane proteins used therapeutically. The PRO proteins have cytostatic, anti-inflammatory, anti-proliferative and immunosuppressive activity. The proteins and polynucleotides can be used in therapy, identification of homologues, raising antibodies and design of probes and primers. They can be used in a range of diseases related to proteins that they have homology with, e.g. a PRO protein having homology to complement proteins may be used in inflammatory responses.
                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-DEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -DEC-1997
                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1999-371118/31.
DB; AAY17827.
                                                                                                                                          181
                361
                                         301
                                                                301
                                                                                                                241
                                                                                                                                                                  181
                                                                                                                                                                                          121
                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΚP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       acids encoding PRO secreted
                                                                                                                                                                                                                                                                                     GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                   GGGACTGCGAGAGGACCCCGGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                   CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                           TGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGCACCA
CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCGCCCGGGGCTCCGGGAGAGAA
                                                   CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGGCCACCATGGCAGCCAGGG
                                                                                                     CGTCCTGCTGCTGGGCCTGGCGGCCGGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                        GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                      CCAACTGGAGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                     1377
                                      CAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                      CGTCCTGCTGCTGGGCCTGGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chen J,
                                                                                                                                                                                                                                                                                                                                         100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                             B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0069694.
97US-0069696.
97US-0069702.
97US-0069870.
97US-0069873.
97US-0068017.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0074086
98US-0074092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0070440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0069425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              970S-0067411
                                                                                                                                                                                                                                                                                                                                                                                             251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goddard
                                                                                                                                                                                                                                                                                                                                                                                          Α;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English
                                                                                                                                                                                                                                                                                                                                                                                            422
                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ņ
                                                                                                                                                                                                                                                                                                                                                                                            Ç
                                                                                                                                                                                                                                                                                                                                        Score 1377;
Pred. No. 1.7
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                          472 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and
                                                                                                                                                                                                                                                                                                                                                                                          232 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΑL,
                                                                                                                                                                                                                                                                                                                                                     1.7e-244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       transmembrane
                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wood
                                                                                                                                                                                                                                                                                                                                                               20;
                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΣĬ,
                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                  Length 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proteins
                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                        Gaps
                                      360
                                                              360
                                                                                      300
                                                                                                              300
                                                                                                                                     240
                                                                                                                                                              240
                                                                                                                                                                                        180
                                                                                                                                                                                                               180
                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                      60
 RESULT 3
AAD01241
ID AAD0
XX
AC AAD0
XX
                                                                                                                                                                                                                                                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                      δõ
                                                                                                                                                 밁
                                                                                                                                                                        δÃ
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
              AAD01241;
                                     AAD01241
                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                     standard;
                                                                                                GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                                                                                                                                                GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                               GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                   CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGÄCAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGACCGCGTGCTGGACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                  GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCCTTGGTC
                                                                                                                                                                                                                                                                                                                                                   GGTCATCCAGGAGGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCAAGCCAGCCTCGCCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGGGCGCCCGGGGCTCCGGGAGAAA
                                     cDNA;
                                     1377
                                                                                                                                                                                                  1260
                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                          1140
                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
```

Š

밁

```
δô
                                                                                                                                                                              日
                                                                 В
                                                                                      δ
                                                                                                                         Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
20-JUL-1999;
26-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                                                 is
                                                                                                                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRO344; DNA40592-1242; human; ATCC No: 209492; antiproliferative; neophastic cell growth inhibitor; cytostatic; treatment; cancer; breast; prostate; colon; lung; renal; ovarian; central nerrous sycons; leukemia; melanoma; Expressed Sequence Tag; EST; secreted process; leukemia; leukemia
                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                  and
                                                                                                                                                                                                                                                                          (ECD)
                                                                                                                                                                                                                                                                                                                                                                                   their
                                                                                                                                                                                                                                                                                                                                                                                             New composition useful treating cancers, compr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-JUN-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200032778-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     extracellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-NOV-2000
                                                                                                                         Local Sir
hes 1377;
                                                                                                                                                    Match
                                                                                                                                                                                                                              present sequence is the cDNA clone, designated as DNA40592-1242, odding the human PRO344 polypeptide. It is isolated from human foetal g tissue cDNA library, identified using probes based on a consensus uence DNA34398, derived from secreted protein extracellular domain D) Expressed Sequence Tag (EST). This clone is assigned ATC deposit 209492. PRO344 functions as a neoplastic cell growth inhibitor and used for treating tumours, using an effective amount of pRO655, PRO364 PRO344. This composition is especially useful for treatment of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                     2000-412325/35.
)B; AAY71468.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                        20;
                  61
                                         61
                                                                                                                                                                                                                                                                                                                                                                                  antagonists
                                                                                                                                                                                                       such
a and
                                                                                                                        h 100.0%;
Similarity 100.0%;
77; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENENTECH
               TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCCGGGAGAACCGCGGGGGCTGGAGCACCA
                                                                                GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                              1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Goddard A,
                                                                    GACTAGTTCTCTTGGAGTCTGGGAGGAGGAGGGAAGCGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                       Fig
                                                                                                                                                                                                       as breast, prostate, melanoma.
                                                                                                                                                                              BP;
                                                                                                                                                                                                                                                                                                                                                        <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US25108.
98US-0112850.
98US-0113296.
99US-0144758.
99US-0145698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US28409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product= "Human
/note= "Derived
227..271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= b
272..955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= c
/product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
227..958
                                                                                                                                                                                                                                                                                                                                                       108pp;
                                                                                                                                                                                                                                                                                                                                                                                           seful for i
                                                                                                                                                                              251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               encoding
                                                                                                                                                                             Α;
                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ø
                                                                                                                                                                              422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Mature
                                                                                                                                                                                                                                                                                                                                                                                             inhibiting neoplastic cell growth and s PRO655, PRO344 or PRO364 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SS
                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĂĽ,
                                                                                                                                                                             Ç;
                                                                                                                                   Score 1377; DB 21;
Pred. No. 1.7e-244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA
                                                                                                                                                                             472 G;
                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRO344 protein" from clone DNA40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hillan
                                                                                                                                                                                                                    colon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clone,
                                                                                                                                                                             232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ,×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRO344
                                                                                                                                                                                                                    lung,
                                                                                                                                                                             Η;
                                                                                                                                                    DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA40592-1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Napier
                                                                                                                                                                             0 other;
                                                                                                                         <u>.</u>
                                                                                                                                                                                                                    renal,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein"
                                                                                                                         Indels
                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ĭ
                                                                                                                                                                                                                    ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wood
                                                                                                                                                    1377;
                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ¥I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                system;
protein;
                                                                                                                                                                                                                                                                                                                                                                                             or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tumour;
                                         120
                                                                                             60
                                                                    60
                                                                                                                        0
                                                                                                                                                                                                                                                                                          ᇕ
Ş
                          밁
                                              Ϋ́
                                                                              밁
                                                                                                   ΔÃ
                                                                                                                                   밁
                                                                                                                                                      δÃ
                                                                                                                                                                                    ďĠ
                                                                                                                                                                                                              δÔ
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                        QV
                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                        皮
                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
    1201
                             1141
                                                      1141
                                                                                1081
                                                                                                          1081
                                                                                                                                    1021
                                                                                                                                                             1021
                                                                                                                                                                                         961
                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                           GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTAGA
                                                                               GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                        GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCAGCGCCAAGCGCTCCGAGAGCCCGGTGCCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCCTCTGCCCGGGGCACCCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                        GCCCAAGCCAGCCTCGCGCGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                           CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCGAGGGCGGGAGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCCTCTGCCCGGGGCACCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
```

```
RESULT 4
ADA46907
ID ADA44
XX AC ADA4
XX AC 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       β
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΩV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                   30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-DEC-1998;
08-MAR-1999;
02-JUN-1999;
01-SEP-1999;
15-SEP-1999;
                            The present sequence encodes a novel human polypeptide. The specification describes novel polypeptides designated PRO201, PRO327, PRO31265, PRO344, PRO343, PRO347, PRO357, PRO515, PRO1117, PRO509, PRO383 and PRO882. These genes are amplified in the genome of tumour cells. The polypeptides are believed to contribute to tumourigenesis. The polypeptides are useful target for the identification of certain cancers, and may act as predictors of the prognosis of tumour treatment. Antibodies against these polypeptides are useful in the treatment and diagnosis of neoplastic cell growth and proliferation in mammals.
                                                                                                                                                                                                                                                                                                                           Botstein Wood WI;
                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                New anti-polypeptide antibody useful in the neoplastic cell growth and proliferation -
                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRO201; PRO292; PRO327; PRO1265; PRO715; PRO1017; PRO1112; PRO509; Full tumourigenesis; cancer; neoplastic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA46907;
                                                                                                                                                                                                                                                                               P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200037640-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAA46907
    Sequence 1377
                                                                                                                                                                                                                                                                                                                                                                      (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                               2000-452188/39.
DB; AAY93688.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  encoding
                                                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                        Goddard
   BP;
                                                                                                                                                                                                   9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    novel
                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US21090.
99WO-US28313.
99WO-US28409.
99WO-US28301.
99WO-US28565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0113296.
99WO-US05028.
99WO-US12252.
99WO-US20111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers 227..958
                                                                                                                                                                                                220pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag=
   251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA; 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                        ۶
   A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ы
                                                                                                                                                                                                  English.
   422
                                                                                                                                                                                                                                                                                                                                        Gurney
 ç;
   472
                                                                                                                                                                                                                                                                                                                                        ΑĿ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRO344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pro344; pro343; pro347; pro357;
pro853; pro882; tumour cell;
c cell growth; cell proliferatio
 G;
                                                                                                                                                                                                                                                                                                                                        Hillan
 232
   Τ;
                                                                                                                                                                                                                                                                                                                                        7,
                                                                                                                                                                                                                                              treatment
   0
                                                                                                                                                                                                                                                                                                                                   Lawrence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cell proliferation;
 other;
                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                        DA,
                                                                                                                                                                                                                                              diagnosis
                                                                                                                                                                                                                                                                                                                                       Roy
                                                                                                                                                                                                                                                                                                                                        Ķ
                                                                                                                                                                                                                                                 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qγ
                                     δÃ
                                                                          밁
                                                                                                 γQ
                                                                                                                                      В
                                                                                                                                                             Ωy
                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Sin
Matches 1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                      841
                                                                                                                                                                    841
                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
```

```
CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAACTGGAGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGAAAGCGCGGGGGCTGGAGCACCA
            CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                     CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTTAGTG
                                                                                                                               GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                               GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTGCAGTTTTTCGGGGGGGTG
                                                                                                                                                                                                                                                                                      CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCGGGGCTCCGGGAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCCTGCTGCTGGGCCTGGCCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                 GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
CCCACTGCAAAGTGAGCTCATGCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                       CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                               GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                           CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCGGGACCCGCGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCGAGGGCGGGAGGGGACCTCGAGGGGACCCCGGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACTAGTTCTCTTGGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1377; DB 21;
Pred. No. 1.7e-244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                       960
                                                                                                               900
                                                                                                                                           900
                                                                                                                                                                        840
                                                                                                                                                                                                   840
                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                               660
                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

0;

Gaps

0

60

```
RESULT 5
AAA4 9560
ID AAA4
XX AAA
XX AAA
XX AAA
XX PRO
DT 25-5
XX PRO
KW PRO
KW PRO
KW PRO
KW SS
XX HOMM
XX HOM
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       νg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                   01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
                                                                                                                                                         Gerritsen I
Hillan KJ,
                                             New human nucleic acids polypeptides, designated and diagnostic agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO243;
PRO355;
                 Claim
                                                                                                                                                                                         Baker KP,
                                                                                                                                                                                                                                                                                                                   01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                08-JUN-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAA49560
                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                             WO200032776-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             membrane bound protein; secreted protein; PRO357; PRO327; 43; PRO715; PRO241; PRO323; PRO299; PRO233; PRO344; PRO347; 55; PRO353; PRO361; PRO365; transmembrane polypeptide; body; screening; detection; inhibition; probe; primer; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                            2000-412324/35.
DB; AAB01318.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRO344
                Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , Botstein D,
n ME, Goddard I
J, Kljavin IJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAAGACCAGAAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTGCTTCTCTGGATCCTCCCACCCCCTCCTCCTGCGGGCCCGGCCCCTTTTCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                     98WO-US25108.
98US-0112850.
98US-0113296.
                                                                                                                                                                                                                                                                                                                99WO-US28301
                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
227..958
/*tag= a
/product= PRO344 pol
              187pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entry)
                                                                                                                                                                       Þ
                                                             encoding
                                                                                                                                                       Eaton DL, F
A, Godowski
Napier MA,
                English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1377
                                                                                                                                                                                                                                                                                                                                                                                                          PRO344 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽P
                                                           secreted and polypeptides,
                                                                                                                                                     Ferrara N, 1
ci PJ, Grimalo
A, Roy MA, To
                                                           transmembrane useful as pha
                                                                                                                                                                       Filvaroff E;
ldi CJ, Gurney
                                                                                                                                                         Á
                                                           pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1140
            Ş
                                                                   δÃ
                                                                                                       밁
                                                                                                                                  δ
                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                 뫄
                                           片
                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                              Вр
                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                            Бр
                                                                                                                                                                                                                                                                                                                                                                                                            . 명
                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New human nucleic acids encoding secreted and transmembrance polypeptides which are designated as PRO polypeptides are described The membrane-bound proteins have various industrial applications, including as pharmaceutical and diagnostic agents. The membrane-bound proteins can also be employed for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. Anti-PRO antibodies are useful for the affinity purification of PRO from recombinant cell culture or natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                    601
                                             781
                                                                                                        721
                                                                                                                                                                       661
                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cal Similarity
1377; Conserv
                                                                          781
                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \vdash
                                           CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                 CGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCAGCGCCAAGCGCTCCGAAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                             GCCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                             GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCGAGGCGGGAGGCCGGGGACTGCCGGGGACCTCGAGGGGGACCCCGGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGACTGCGAGAGGACCCCGGCGTCCCGGGTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1377
                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCGAGGCGGGAGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; ilarity 100.0%; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  251 A; 422 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1377; DB 21;
Pred. No. 1.7e-244;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  472 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
```

780

780

900

720

660 660 600 540 540 480

600

720

480

420 420 300

240

300

180 180

360

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ν
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ν
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ρ
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                밁
01-DEC-1999

01-DEC-1999

02-DEC-1999

02-DEC-1999

02-DEC-1999

09-DEC-1999

16-DEC-1999

20-DEC-1999

20-DEC-1999

20-DEC-1999

30-DEC-1999

30-DEC-1999

30-DEC-1999

16-JAN-2000

11-FEB-2000

18-FEB-2000

18-FEB-2000
                                                                                                                                                                                                                                     breast; prostate; cer-
cartilage; ear; proli-
adipocyte; A-peptide;
                                                                                                                                                           01-DEC-2000;
                                                                                                                                                                              07-JUN-2001
                                                                                                                                                                                                                                                                                                           24-OCT-2001
                                                                                                                                                                                                                                                                                                                                                 AAS21424 standard;
                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                      Human cDNA sequence encoding
                                                                                                                                                                                                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                    secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                               GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTCATCCAGGAGGGCTGGCCCCCCCGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                     etory and transmembrane; PRO; mammalian; cancer; lung; ostate; cervical; tumour necrosis factor-alpha; TNF-alpha; ear; proliferation; glucose; free fatty acid; skeletal muscle; A-peptide; factor VIIA; gene therapy; ss.
99WO-US28301
99WO-US28634
99WO-US28564
99WO-US28565
99WO-US28565
99US-0170262
99WO-US30095
99WO-US30991
99WO-US30991
99WO-US30277
2000WO-US00277
2000WO-US00376
2000WO-US00376
2000WO-US00344
                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                           2000WO-US32678
                                                                                                                                                                                                                                                                                                                                                 cDNA;
                                                                                                                                                                                                                                                                                                                                                 1377
                                                                                                                                                                                                                                                                                     for PRO344 polypeptide.
                                                                                                                                                                                                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
```

```
breast, prostate, rectal, cervical or liver tumours by comparing PRO CC polypeptide expression in a cell sample to that in a control sample. CC Some of the 275 sequences are also useful to stimulate the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, the CC proliferation or differentiation of chondrocytes, the proliferation or gene expression in pericyte cells, the release of proteoglycans from CC cartilage, the proliferation of inner ear utricular supporting cells or CC T-lymphocytes, the release of a cytokine from peripheral blood monocytes (PBMCS), or the proliferation of endothelial cells. Some of CC monocytes (PBMCS), or the proliferation of free fatty acid uptake by skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide to factor VIIA. The PRO polypeptides can be used in assays to identify CC molecules involved in binding interactions. The polyuncleotides encoding PRO polypeptides can be used to generate probes, antisense RNA/DNA, CC transgenic or knock out animals and can be used in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
20-MAR-2000;
21-MAR-2000;
30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gerritsen Smith V,
                                                                                                                                                                                                                                                                                                           AAS21244-AAS21518 encode for novel human secretory and transmembrane PRO polypeptides. The PRO polypeptides are useful to detect other PRO polypeptides, to link bloactive molecules to cells expressing PRO polypeptides, to modulate biological activities of cells expressing PRO polypeptides, and to detect the presence of mammalian lung, colon, PRO polypeptides, and to detect the presence of mammalian lung, colon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Isolated, secretory and transmembrane PRO polypeptide used to detect other PRO polypeptides, link bioactive molecules to cells expressing PRO polypeptides, and detect the presence of mammalian tumours e.g. lung, breast, prostate, cervical -
                                                                                                                                                                                                                                                                                                                                                                                                                             Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-MAY-2000;
30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001-408281/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ξĐ,
                                                                                                                                                                                                                                                                                                                                                                                                                         3; Fig 361; 813pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU12352.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Beresini M, ME, Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US04414
2000WO-US05004
2000WO-US05601
2000WO-US05601
2000WO-US07377
2000WO-US07377
2000WO-US013705
2000WO-US13705
2000WO-US14941
2000WO-US14941
2000WO-US15264
2000WO-US15264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l A, Godow
Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Deforge L, Desnoyers L,
A, Godowski PJ, Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ΑĽ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Filvaroff E,
L, Sherwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Σ
```

Sequence 1377 BP; 251 A; 422 C; 472 G; 232 T; 0 other;

20 Qy 밁 밁 밁 Q 뮹 δÃ Query Match Best Local Similarity Matches 1377; Conserv 181 181 121 121 61 61 ۲ GGGACTGCGAGAGAGGACCCCGGGCGTCCGGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG TGGGGTGACGGCAGGGCAGGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA TGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT Conservative 100.0%; .0%; Score 1377; DB 22; .0%; Pred. No. 1.7e-244; 0; Mismatches 0; 22; Indels Length 1377; 0; Gaps 240 180 120 120 60 180 0

CGTCCTGCTGCTCCTGGGCCTGGCCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC

```
GCACTCTCCGTCCTGCTGCCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGACCGCCGTGCTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCGGGACCCGCGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                   1320
                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                             1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                      1260
                                                                                                                                                                                                                                                                                              1200
                                                                                                                                                                                                                                                                                                                                                                                                 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
RESULT 7
AACC5 86.26
ID AACC5 86.26
XX AACC5
XX AACC5
XX AACC5
XX AACC5
XX AACC5
XX AACC5
XX Huma
XX Huma
XX Huma
XX AACC5
XX AAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KW Human; immune related disease; diagnosis; antiinflammatory; cardiant; KW dermatological; antitarhritic; antirhematic; immunosuppressive; kW haemostatic; antithyroid; antidiabetic; nootropic; neuroprotective; kW antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic; was antiarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis; kW antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis; kW systemic vasculitis; autoimmune haemolytic anaemia; thyroiditis; wystemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus; was uroimmune thrombocytopaenia; immune-mediated renal disease; kW autoimmune disease; hepatobiliary disease; whipple's disease; kW autoimmune disease; immune-mediated skin disease; allergic disease; kW autoimmune disease; immune-mediated skin disease; allergic disease; kW autoimmune disease; transplantation associated disease; www. yraft rejection; graft-versus-host-disease; ss.
20-JUL-1999

26-JUL-1999

28-JUL-1999

28-JUL-1999

28-JUL-1999

01-SEP-1999

13-SEP-1999

15-SEP-1999

15-SEP-1999

05-OCT-1999

29-OCT-1999

30-NOV-1999

30-NOV-1999

30-NOV-1999

01-DEC-1999

01-DEC-1999

02-DEC-1999

02-DEC-1999

02-DEC-1999

02-DEC-1999

03-DEC-1999

16-DEC-1999

17-DEC-1999

18-DEC-1999

18-DE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-MAY-1999;
14-MAY-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-MAR-1999;
10-MAR-1999;
12-MAR-1999;
23-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-APR-1999;
20-APR-1999;
28-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAC58626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRO344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard; cDNA; 1377
99US-0134287

99US-0141037

99US-0144598

99US-0146222

99WO-US20111

99WO-US20111

99WO-US21940

99WO-US21940

99WO-US21847

99WO-US218214

99WO-US218214

99WO-US28813

99WO-US28813

99WO-US28813

99WO-US28851

99WO-US28851

99WO-US28851

99WO-US28851

99WO-US28551

99WO-US28551

99WO-US28551

99WO-US28551

99WO-US28551

99WO-US28551

99WO-US28551

99WO-US2857

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein UNQ303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US05841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US05028.
99US-0123618.
99US-0123957.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0128849
99WO-US08615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0132371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0125775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -0131445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
```

D D

661 661 601 601 541 541 481 481 421

721

721

781 781 밁 Qy 밁 δ В δÃ В δÃ В δÃ 밁 δÃ 밁

> 421 361 361 301 301 241

encoding cDNA SEQ

IJ

NO:240

BP

õ 밁 δô 멍 Š В Š В δÃ В QΥ ₽ ρ В Qy 밁 Q 밁 δÃ 밁 Š

1321

1141 1141 1081

1201 1201

1021 1021

961 961 901

```
рь
                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                   ğ
                                                                                                                            Q
                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δõ
                                  밁
                                                           Ş
                                                                                                밁
                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes sixty four human PRO proteins which can CC be used in the treatment of immune related diseases. The human PRO CC proteins, anti-PRO antibodies, agonists and antagonists are useful for treating and diagnosing immune related disorders. The disorders are CC selected from systemic lupus erythematosus, rheumatoid arthritis, costeoarthritis, juvenile chronic arthritis, spondyloarthropathies, Systemic sclerosis, idiopathic inflammatory mopathies, Systemic systemic vasculitis, sarcoidosis, autoimmune haemolytic candemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus, immune-mediated renal disease, demyelinating diseases of the central CC and peripheral nervous systems, hepatobiliary diseases, inflammatory bowel disease, gluten-sensitive enteropathy and Whipple's disease, cautoimmune or immune-mediated skin diseases, allergic diseases, cautoimmune or immune-mediated skin diseases, allergic diseases, cautoimmune or immune-mediated skin diseases, allergic diseases, cautoimsune diseases, allergic diseases, cautoimsune diseases, allergic diseases, cautoimsune diseases, allergic diseases, cautoimsune diseases, demyelessant diseases, allergic diseases, allergic diseases, allergic diseases, allergic diseases, demyelessant diseases, allergic dis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Sim
Matches 1376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sixty four PRO polypeptides, useful in the diagnosis and treatment of immune related disorders, e.g. systemic lupus erythematosis, rheumato arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ashkenazi AJ,
Kabakoff RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-FEB-2000;
22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000-572271/53.
DB; AAB33461.
                                                                                                  301
                                                                                                                               301
                                                                                                                                                                 241
                                                                                                                                                                                               241
                                                                                                                                                                                                                              181
   421
                                  361
                                                                361
                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                           .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                   RC,
                                                                                                                                                            | CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                          TGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                               CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGC
                                                                                                                                                                                                                             GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                           GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                          CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                       TGGGGTGACGGCAGGGGGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
   AGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fig 95; 309pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lu Y, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US04342
2000WO-US04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker KP,
Lu Y, Pan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  251 A; 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (P, Goddard A,
Pan J, Pennica
Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1375.4; DB 21; Length Pred. No. 3.3e-244; O; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  471 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D, S
Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gurney AL, Heb
D, Shelton DL,
Wood WI, Yan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hebert C,
DL, Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Henzel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                used
                                                                420
                                                                                                                                                                                                                                                                                                                                                         120
   480
                                                                                                360
                                                                                                                               360
                                                                                                                                                               300
                                                                                                                                                                                           300
                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                  420
                                                                                                                                                                                                                           240
RESULT 8
AAX24684
ID AAX2
XX
AC AAX2
AC AAX2
XX
DT 21-J
XX
Huma
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Вþ
Human adipocyte-specific protein zsig39
                                 21-JUN-1999
                                                                AAX24684;
                                                                                                AAX24684
                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                     CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                standard;
                                                                                                                                                                              GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCAAGCCTGCCTCGCGGGGGGGGCCATGGTGAGGCTGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCGGGACCCGCGGGCCCACCGGGCCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                           GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
```

840 840

900

780

720 720 660

780

600 600 540

1200

1200 1140 1140 1080 1080 1020 1020 960 960 900

Qy	DP QV	Db Qy	Ди ма	ន្តន្តន	នននន	នននន	8888	នននន	:×388	XY	DR XX	YX YX XX	XX PF XX	X P X F	F111111111111111111111111111111111111	FTT	X O X X X	××
160 GCCATCGC	100 AGCGCGGC 71 AGCGCGGC	40 CGGCAGGC 	Simi 4;	to ischaemia and/or promoting lysis or p	applications), and a method for modulating free fat metabolism by administering a zsig39 polypeptide polypeptide may also be used in organ preservation, orvopreservation, for surdical prefraatment to prevent the prevent of the prevent and preservation.	protein apM1. A full-length clone was obtained from a lung tissue library. The zsig39 gene maps to the 11g23 3 region. Expression vectors, cultured cells and a method of producing zsig39 polypeptide are claimed, as well as probes and primers (useful in diagnostic	acids ed, and owed the	285-491, 285-491 Novel zsig39 poly EST database for upstream methion:	isolated in zsig3	protein -	Humes JM, Sheppard WPI; 1999-204665/17. P-PSDB: AAW97984.	26-AUG-1997; 97US-0 (ZYMO) ZYMOGENETICS	04-MAR-1999. 26-AUG-1998; 9	WO9910492-A1.		Key CDS	Adipocyte-specific protein; energy balance; nutrition; Homo sapiens.	
GCCATCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGC	AGCGCGGGGGCTGGAAGCACCAACTGGAGGGTCCGGAGTAGCGACGCCCCGAAGGAG 	CGGCAGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGGGGGCGCTGGCCGGGGAGA	96.0%; 99.8%; vative (<pre>//or inflammation, or phagocytosis o p: 235 A: 421 C: 4</pre>	and a method for modulating free fatty acid diministering a zsig39 polypeptide. The zsig39 yalso be used in organ preservation, for surgical prefreatment to prevent indury due for surgical prefreatment to prevent indury due	A full-length clone was obtained from a lung tissue saig39 gene maps to the 11q23.3 region. Expression red cells and a method of producing zaig39 polypeptised cells and a method of producing zaig39 polypeptised cells and a method with the saig saig saig saig saig saig saig saig	acids and a cleavage site. id, and the novel polypepti wed the identification of complement related protei	1, 285-491, 491-926 of this isolated polynucleotide. zsig39 polypeptides were initially identified by querying itabase for secretory signal sequences characterised by an methionine start site, a hydrophobic region of approximations.	de 62:	used to r	ard PO; /17.	97US-0056983. ETICS INC.	98WO-US17724.		/*tag= b /note= "alternatively 252926 /*tag= c	Location/Qualifiers 198929 /*tag= a 198251	ic protein; zinutrition; an	
GGGACTGCGAGAG	\CCAACTGGAGGGT \CCAACTGGAGGGT	.GGACTGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGAC 	core 1322.2; red. No. 2e-	tion, and as an an ais of infectious C: 465 G: 226 T:	method for modulating tering a zsig39 polype be used in organ prese surgical pretreatment	clone was obta to the 11q2; method of pro	s site. A single Estlypeptide encoded by ion of a homologue rate in Acro30 and	this isolated initially identification in the sequences and sequences are also as a sequence and a sequence as a s	encodes human adipocyte-specific claimed polynuclectides comprise. 285-485. 285-485. 285-485.	fatty				"alternatively nucleotides		ifiers	; zsig39; human; antimicrobial;	
GACCCCGGCGTO	ICCGGAGTAGCGA CCGGAGTAGCGA	\GGGCAGGGGGCG \GGGCAGGGGGGCG	4. DB	n antimicrobial ous agents. T: 0 other:	free fatty acid spride. The zsig39 rvation, for to prevent injury due	ained from a 3.3 region. 3.3 region. 5.3 oducing zsig3	gle EST sequence the by the full-the by the full-the squeezelationship and adipocyte to	polynucleotide. dentified by que characterised chereion of an	adipocyte-sp cleotides com	acid metabolism				eotides 243-926	nucleotides 198-242"		; fatty acid metabolism; ss.	
CGGCTCCCGGTG	GCGCCCCGAAGGA GCGCCCGAAGGA	CCTGGCCGGGGAG	gth 1347; s 0; Gaps	al agent,	icid zsig39	lung tissue Expression 9 polypeptide	uence was full-length conship with conship with	of this isolated polynucleotide. were initially identified by querying an y signal sequences characterised by site. a hydrophobic region of approximately	ecific prise 285-488				÷	26 "	42"		etabolism;	
C 219	G 159 G 130 .	A 99 70	0,				. 4	<										
							<u> </u>				 -						-	_
Ωy	Дb	. Qy	рь	Дb	Qу	QУ	ДУ	ОУ	Оy	Qy Db	Db Qy	Db Qy	ДУ	D dy	Qу	Db Qy	Оy	망
1240 TGGGGTGCTCTCTTO			1060 TGACTAGGGAGG 1031 TGACTAGGGAGG	1000 AGGGTGTGAGG	940 CTCCCCAGTC	880 TGCCAGCATC	820 GCTGGAGCC1 791 GCTGGAGCC1	760 CTTCCAGTT	700 CGTCTACCG 671 CGTCTACCG	640 CGTCACCG	580 GTCTGACG 551 GTCTGACG	520 CTCGGTGC 491 CTCGGTGC	460 GGACCCCC 431 GGACCCCC	400 GCCCGGG 371 GCCCGGG	340 GGGCCAC	280 ACTGGACG	220 CAGCGCTA 191 CAGCGCTA	131 GCCATCGGGG
CTGGTCC	CTGGCAAG	CAGGTCTGG	TGGGGTAGAC	CTGACAACCAC CTGACAACCAC	TTTGCTTAGTGO	'AAGACAGACAG(AAGACAGACAG(PGAGGACCAAGTO GAGGACCAAGTO	TTTCGGGGGGTGG	GGCCAGCCTGCAC GGCCAGCCTGCAC	GCAAGTTCACCTGO CAAGTTCACCTGO	CACCCTTGCCCTT(CACCCTTGCCCTTC	CTCCGCGATCCGCC	3GGCCGCGAGGAGA(3GGCCGCGAGGAGA(GCTCCGGGAGAGAA GCTCCGGGAGAGAA	CATGGCAGCCAGGG ATGGCAGCCAGGG	ACAACAAGATCCC ACAACAAGATCCC	CAGCGCTATGAGGCCACTCCTO	AGCCGGGAGGG
CCTGGTCCTCTGCTTCTCTGGA1	CTGGCAAGTGTAAGTCCCCCAG; 	CAGGTCTGGCAGCATGGGGCAGT(CAGGTCTGGCAGCATGGGGCAGTC	TGGGGTAGAGCACTCTCCGTCCTG(3CTGACAACCAGGTCATCCAGGAGGG 	TTTGCTTAGTGCCCACTGCAAAGTGA(AAGACAGACAGCACCTTCTCCGGATT: 	rgaggaccaagtgtgggtgcaggtggg; 	ITTCGGGGGGTGGCCCAAGCCAGCCTC - - - - - - - - - - - - - - - - - - -	GGCCAGCCTGCAGTTTGATCTGGTGAA 	3CAAGTTCACCTGCCAGGTGCCTGGGGT	CACCCTTGCCCTTCGACCGCGTGCTGGT(CTCCGCGATCCGCCTTCAGCGCCAAGCG	;GGCCGCGAGGAGAGGCGGGACCCGCGGG; 	3CTCCGGGAGAGAAAGGCGAGGCGGGAG 	ATGCAGCAGGCTTGCCGGGCCGCA: 	ACAACAAGATCCCCAGCCTCTGCCCGGGI	TGAGGCCACTCCTCGTCCTGCTGCTCCTC	ngccgggaggggggactgcgagaggak
TGGGGTGCTCTCTTGCTGGTCCTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCT	AGGACTGTGCTGTGCTAGCTAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGG 	GGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAG	TGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGT 	AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA	CTCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG	TGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAG	GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTA 	CTTCCAGTTTTTCGGGGGGTGGCCCAAGCCAGCCTCTCGCGGGGGGGG	CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT	CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCAC	GTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGC	CTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCC	GGACCCCGGGCCGCGAGGAGAGGCGGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTG	400 GCCCGGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGG 	GGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCGCGACGGCGCGACGGCGCGACGGCGCGACGGCGCGCGACGGCGCGACGGCGCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGCGCGACGGCCGCGACGGCCGCGACGGCCGCGACGCGCGCGACGCGCGACGCGCGACGGCCGCGACGCGCGCGCGACGCCGC	ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCC	CAGCGCTATGAGGCCACTCCTCGTCCTGCTGCTCCTGGGCCTGGCGGCCGGC	131 GCCATCGGGGAGCCGGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGC

Qy	Qy	Qy Db	Qy Db	X B O	25 × 35	ຊ ິດຄຸດ	S X P F	Z P P X C	XX PXX	PR XX	Z X G X Z	XX S X X	X X X X	D X D X	AAF XX AC	Db RES	Qy	γ γ γ
	174 GGGAGGGGGACTGCGAGAGGACCCCGGGGTCCGGGCTCCCGGGTGCCAGCGCTATGAGGC 233	114 AGCACCACCAACTGGAGGGTCCGGAGTAGCGACCCCCGAAGGAGGCCATCGGGGAGCC 173	54 CCAGGACTGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGAGAAAGCGCGGGGGGCTTGG 113	Query Match 94.2%; Score 1296.6; DB 22; Length 1338; Best Local Similarity 99.6%; Pred. No. 1e-229; Matches 1310; Conservative 0; Mismatches 4; Indels 1; Gaps 1;	coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders. Sequence 1338 BP; 229 A; 423 C; 460 G; 226 T; 0 other;	The present invention provides the protein and coding sequences of the human and murine secreted or transmembrane proteins TANGO 253, TANGO 257, TANGO 281 and INTERCEPT 258. These are useful in the treatment of	sclerosis and asthma - Claim 1; Page 210; 332pp; English.	New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear	- K-	18-JUN-1999; 99US-0336536.	W0200078808-A1. 28-DEC-2000.	developmental disorder; kidney disorder; ss. Homo sapiens.	Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder;	28-MAR-2001 (first entry) Human TANGO 253 coding sequence SEQ ID NO: 1.	AAF44970 ID AAF44970 standard; cDNA; 1338 BP. XX AC AAF44970;	1331 AAAAAAA 1337 ULT 9	1271 GGGGCCGTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTCAAAAAAAA	GGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTCATAAAAAAAA
																		•
Qy	Db Qy	Db Qy	g 9	D dg	Q7	pb dy	Д Д	рр	Db 49	B 4	Db .	Дb	Db	ДУ	dg Qy	ОУ	дь V9	Db
1314 TCTCAGAGATCACTCAATAAACCTAAGAACCCTCATAAAAAAAA	1254 CCTGGTCCTCTCTCTGGATCCTCCCCACCCCTCCTCCTCGGGGCCGGCC	CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTT	AGSTCTIGGCAGCATGGGGCAGTIGGCTGATTTCTIGCCCAAGACCAGAGGACTGTGCTGTG	GGTAGAGCACTCTCCGTCCTGCTGCCAGGGAAGGAATGGGAAGTGGCTGTCTGCGATC	ACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTG	954 CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTAGAAGGAGGTGTGAGGCTG 1013	CAGACASCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTG	ACCAAGTGTGGGTGCAGGTGGGTTGGGTGATACATTGGCATCATGCATCATGCCACCACCAAGA ACCAAGTGTGGGTGCAGCATCAGATCAGATCAGATCAGA	7/4 GGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAGCCTGAAG 1111111111111111111111111111111111			594 TGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAACT 653	GATCCGCCTTCASCGCCAAGCGCTCCGACAGCCGGTGCCTCCGCCGTCTGACGCACCCT 	474 GAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGC 533	414 GAGAGAAAGGCGAGGCGGGAAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGC 473	354 GCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCGCGC	294 AGATCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGCCCACCATGGCA 353	

```
AREASULT 10
AARF4 30
AARF4 40
AARF4 XX
AC AARF4
XX
AC AARF4
XX
AC AARF4
XX
AC AARF4
XX
AC AARF4
XX
AC AARF4
XX
AC AARF4
XX
AC AARF4
XX
AC INTER
AC Huma
AC AARF4
XX
AC INTER
A
                밁
                                     δ B
                                                                                                    Ş
                                                                                                                                        밁
                                                                                                                                                                   δ
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                   VΩ
                                                                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                      Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, TANGO 281 and INTERCEPT 258. These are useful in the treatment coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acids for treating diseases and disorders, e.gatherosclerosis, infection, autoimmune diseases, obesity, disorders, brain disorders, tumors, diabetes, arthritis, r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; planonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MILL-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAF44998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF44998
                                                                                                                                                                                                                                                                                                                                                     Match
Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1274
                                                                                                                                                                                                                                                                                                                                       1309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens.
                   255
                                               294
                                                                                195
                                                                                                              234
                                                                                                                                                135
                                                                                                                                                                              174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-050109/06
                                                                                                                                                                                                                                           114
                                                                                                                                                                                                             75
                                                                                                                                                                                                                                                                         15
                                                                                                                                                                                                                                                                                                        54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MILLENNIUM
                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                         CCAGGACTGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                   1338
                                                                             CACTCCTCGTCCTGCTGCTGCTGGGCCTGGGCGGCCGGCTCGCCCCACTGGACGACAACA
                                                                                                                                             GGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGC
                AGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCA
                                                                                                                                                                                                                            AGCACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCC
                                                                                                                                                                                                                                                                         CCGGGACTGGCGTGACGGCAGGGCAGGGGGCGCCCTGGCCGGGGAGAAGCGCGGGGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                             AGCACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 271;
                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                   ₿₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ç
                                                                                                                                                                                                                                                                                                                                                                                                   229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA;
                                                                                                                                                                                                                                                                                                                                                   94.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bossone
                                                                                                                                                                                                                                                                                                                                                                                                   Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           332pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         related
                                                                                                                                                                                                                                                                                                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                       ċ
                                                                                                                                                                                                                                                                                                                                      Score 1295; DB 2
Pred. No. 2e-229;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                   Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       coding
                                                                                                                                                                                                                                                                                                                                                                                                   460
                                                                                                                                                                                                                                                                                                                                                                                                   <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence
                                                                                                                                                                                                                                                                                                                                                                                                   227
                                                                                                                                                                                                                                                                                                                                                                                                   Η;
                                                                                                                                                                                                                                                                                                                                                                   22;
                                                                                                                                                                                                                                                                                                                                      5:
                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ
                                                                                                                                                                                                                                                                                                                                                                                                 other;
                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ≠.g.
⊤. ear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           multiple
                                                                                                                                                                                                                                                                                                                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           s of the TANGO 257,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of
                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                         173
                                               353
                                                                             254
                                                                                                              293
                                                                                                                                               194
                                                                                                                                                                            233
                                                                                                                                                                                                            134
                                                                                                                                                                                                                                                                         74
RESULT 11
AAF44999
ID AAF44
XX
                                                                                                                         δÃ
                                                                                                                                                              В
                                                                                                                                                                                        ρ
                                                                                                                                                                                                                       Ъ
                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                AAF44999
                                                                                                                              1314
                                                                                                                                                                                                                           1154
                                                                                                                                                                                                                                                          1194
                                                                                                                                                                                                                                                                                        1094
                                                                                                                                                                                                                                                                                                                                                     1034
                                                                                                 1274
                                                                                                                                                              1214
                                                                                                                                                                                             1254
                                                                                                                                                                                                                                                                                                                       1134
                                                                                                                                                                                                                                                                                                                                                                                  1074
                                                                                                                                                                                                                                                                                                                                                                                                                                               1014
                                                                                                                                                                                                                                                                                                                                                                                                                 974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          794
                                                                                                                 ACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGGACTGGCACAGCTCCCCCAGTCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCCATGGTGAGGCTGGAGCCTGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGC
                standard;
                                                                                                                                                                                                                                             CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTT
                                                                                                                                                                                                                                                                                                                                                     CAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAGGGCTTGCCGGGCCGCGATGGCCGCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGG
                                                                                                 CCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTT
                                                                                                                                                                                                                              CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGGTGCTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                  GGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCCTTCGACCGCGTGCTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGACGGTGCGCCCGGGGCCTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                 ACAACCTGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTG
                  CDNA;
                дΒ
```

1313

1213

1273

1153

1093

1073

1033

1013

973

673
773
7733
833
793
893
893
953

553 653 493

593

473 433

```
요 성
                           В
                                          γQ
                                                          밁
                                                                         δÃ
                                                                                         В
                                                                                                         Qγ
                                                                                                                        DЪ
                                                                                                                                       δ
                                                                                                                                                       DЬ
                                                                                                                                                                      QΥ
                                                                                                                                                                                         Вb
                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                         Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                      The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, TANGO 281 and INTERCEPT 258. These are useful in the treatment ocoronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                     New nucleic acids for treating diseases and disorders, e. atherosclerosis, infection, autoimmune diseases, obesity, disorders, brain disorders, tumors, diabetes, arthritis, sclerosis and asthma
                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                           Leiby
                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                            (MILL-)
                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                          19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAF44999;
                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                         Match
                                                                                                                                                                                                                         1309;
                                                              255
                                                                                                                                           174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens,
  375
                 414
                                 315
                                                354
                                                                              294
                                                                                              195
                                                                                                            234
                                                                                                                             135
                                                                                                                                                                           114
                                                                                                                                                           75
                                                                                                                                                                                           15
                                                                                                                                                                                                           54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 secreted
                                                                                                                                                                                                                                                                                                                                                                                                           MILLENNIUM
                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                         1338
GAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGC
                                                              AGATICCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCA
                                                                                                                                                                   AGCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCC
                                                                                                                                                                                                  CCAGGACTGGGGTGACGGCAGGGCAGGGGCCCCCGGCCAGAAAGCGCCGGGGCTGG
                                       GCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCGGGGCTCCGG
                                                                                             GGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTGCCGGTGCCAGCGCTATGAGGC
                                CACTCCTCCTCCTGCTCCTGGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACA
                                                                                                                            GGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGC
                                                                                                                                                          AGCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCC
                                                                                                                                                                                          CCGGGACTGGGGTGACGGCAGGGCAGGGGGGGCGCCTGGCCGGGGGAGAAGCGCGGGGGCTGG
                                                                                                                                                                                                                                                                                                                      Page
                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                         BP;
                                                                                                                                                                                                                                                                                                                                                                                                                          9908-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein
                                                                                                                                                                                                                                                                                                                                                                                        , c,
                                                                                                                                                                                                                                                        229 A;
                                                                                                                                                                                                                                                                                                                                                                                                            PHARM
                                                                                                                                                                                                                                94.0%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                            Bossone
                                                                                                                                                                                                                                                                                                                     332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                related
                                                                                                                                                                                                                                                         422
                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                         Score 1295; DB 2
Pred. No. 2e-229;
0; Mismatches
                                                                                                                                                                                                                                                        C; 460
                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              coding
                                                                                                                                                                                                                                                        G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence
                                                                                                                                                                                                                                                         227
                                                                                                                                                                                                                                                         T; 0
                                                                                                                                                                                                                                      3 22;
                                                                                                                                                                                                                         5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ
                                                                                                                                                                                                                                                       other;
                                                                                                                                                                                                                                        · Length
                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NO:
                                                                                                                                                                                                                                                                                                                                                            e.g.
                                                                                                                                                                                                                                                                                                                                             multip
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               105
                                                                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                        TANGO
                                                                                                                                                                                                                                                                                         s of the TNGO 257,
                                                                                                                                                                                                                         Gaps
  433
                473
                              374
                                               413
                                                              314
                                                                             353
                                                                                             254
                                                                                                            293
                                                                                                                            194
                                                                                                                                           233
                                                                                                                                                           134
                                                                                                                                                                          173
                                                                                                                                                                                        74
ARF45000
ID AAF45
XX AAF45
AC AAF45
XX AAF45
XX AAF45
XX Human
XX Human
XX Human
                                                                                                                                                 Qγ
                                                                                                     밁
                                                                                                               QΥ
                                                                                                                                  B
                                                                                                                                                                 밁
                                                                                                                                                                              γQ
                                                                                                                                                                                                 밁
                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                         ΩY
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                          Дb
                                                                                                                                                                                                                                                                                                                                                                        QY
                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ър
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΔÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                Human
                                                AAF45000;
                                                              AAF45000
                                                                                                                    1314
                                                                                                                                                                   1154
                                                                                                                                   1214
                                                                                                                                                   1254
                                                                                                                                                                                  1194
                                                                                                                                                                                                 1094
                                                                                                                                                                                                                1134
                                                                                                                                                                                                                                1034
                                                                                                                                                                                                                                                1074
                                                                                                                                                                                                                                                                               1014
                                                                                                                                                                                                                                                                974
                                                                                                                                                                                                                                                                                              914
                                                                                                                                                                                                                                                                                                             954
                                                                                                                                                                                                                                                                                                                              854
                                                                                                                                                                                                                                                                                                                                            894
                                                                                                                                                                                                                                                                                                                                                                          834
                                                                                                                                                                                                                                                                                                                                                                                                                          674
                                                                                                                                                                                                                                                                                                                                                            794
                                                                                                                                                                                                                                                                                                                                                                                          734
                                                                                                                                                                                                                                                                                                                                                                                                          774
                                                                                                                                                                                                                                                                                                                                                                                                                                         714
                                                                                                                                                                                                                                                                                                                                                                                                                                                         614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      474
                secreted
                                                                                                    CAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTG
                                                                                                                                                                 AGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTG
                                                                                                                                                                                                                                                                                                      CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                                                                                                                                                                                                                                                                                                                                          GGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGC
                                                              standard;
                                                                                                                                                                                                                                                               ACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTG
                                                                                                                                                                                                                                                                                              CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                (first
               protein related
                                                              cdna;
                               entry)
                                                              1338
```

1073

1033

1013

913 953 853 893 793 833 733 773 673 713 613 653 553 593 493

973

1273

1213

```
Human; mouse;
 secreted
protein; TANGO253; TANGO 257; TANGO 281;
                                                                                                       ВP
                        coding sequence SEQ
                           IJ
                           NO:
```

```
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, TANGO 281 and INVERCEPT 258. These are useful in the treatment coronary, pulmonary, olfactory, immunological, neurological,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New nucleic acids for treating diseases and disorders, e. atherosclerosis, infection, autoimmune diseases, obesity, disorders, brain disorders, tumors, diabetes, arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               coronary, pulmonary, olfa developmental and kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MILL-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200078808-A1
                      534
                                                                                       474
                                                        434
                                                                                                                           375
                                                                                                                                                             414
                                                                                                                                                                                                                                                                                                                                                  195
                                                                                                                                                                                                                                                                                                                                                                                                                       135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-050109/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                       354
                                                                                                                                                                                                                                                                           255
                                                                                                                                                                                                                                                                                                            294
                                                                                                                                                                                                                                                                                                                                                                                    234
                                                                                                                                                                                                                                                                                                                                                                                                                                                           174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MILLENNIUM
                                                    GAGGAGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGC
                                                                                                                         GAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGC
                                                                                                                                                                                                GGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGGACTGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCGGGAGAAACCGCGGGGGCTGG
                                                                                                                                                                                                                                                                         AGCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCC
                    GATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGGGACTGGGGTGACGGCAGGGGCAGGGGGGGCCCCTGGCCGGGGGAGAAGCGCGGGGGGCTGG
                                                                                                                                                                                                                                                                                                            AGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and asthma -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9905-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ć,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94.0%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1295; DB 2
Pred. No. 2e-229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            225 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  s of the TANGO 257,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of.
                                                                                                                             433
                                                                                                                                                              473
                                                                                                                                                                                                                                     413
                                                                                                                                                                                                                                                                         314
                                                                                                                                                                                                                                                                                                           353
                                                                                                                                                                                                                                                                                                                                                                                293
                                                      493
                                                                                                                                                                                                                                                                                                                                                254
                                                                                                                                                                                                                                                                                                                                                                                                                       194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       113
RESULT 13
AAF45001
ID AAF45
XX AAF45
XX AAF45
XX AAF45
XX AAF45
XX AAF45
XX Human
XX
                                                                                                                                                                                                                                                                                                                                                                                             δã
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ωy . Β
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΩV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                       AAF45001
                                                                                       neurological
                                                                                                            INTERCEPT
                                                                                                                                                                Human
                                                                                                                                                                                                    28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1034
                                                                                                                                                                                                                                                                                                                                                                 1274
                                                                                                                                                                                                                                                                                                                                                                                                  1314
                                                                                                                                                                                                                                                                                                                                                                                                                                        1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1014
                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        494
                                                                                                                                                                secreted
                                                                                                          mouse; ;
EPT 258;
                                                                                                                                                                                                                                                                         standard;
                                                                                                                                                                                                                                                                                                                                                                                    CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGACTGTGCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGTAGAGCACTCTCCGTCCTGCTGCTGCAGGAATGGGAACAGTGGCTGTCTGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCAAGTGTGGGTGCAGGTGGGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCT
                                                                                         disorder;
                                                                                                                         secreted protein; TANGO253; TANGO 257; TANGO
                                                                        disorder;
                                                                                                                                                             protein
                                                                                                          coronary
                                                                                                                                                                                                                                                                         CDNA;
                                                                                                                                                                                                  entry)
                                                                       pulmonary disorde
kidney disorder;
                                                                                                                                                                related
                                                                                                          disorder;
                                                                                                                                                                                                                                                                         ВÞ
                                                                                                                                                             coding
                                                                                     disorder; immunological
                                                                                                                                                                sequence
                                                                                                                                                                SEQ
                                                                                                                                                                Ħ
                                                                                                                                                                ĕ
                                                                                                                                                                  109.
```

1093

1073

1273

1213

1013

973

953 913 793

673

613

733

Ş

g Q

Q

뫄

Qy Db

밁

5 B 5

밁

```
SQ CCCCCCXXXIII
                                                                                                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                            δõ
                                                                                              δõ
                                                                                                                       뫄
                                                                                                                                                  Qy
                                                                                                                                                                                 밁
                                                                                                                                                                                                     ν
                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                     Дb
                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
δõ
                        밁
                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides the protein and coding sequences of human and murine secreted or transmembrane proteins TANGO 253, TANG TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1309;
  654
                        554
                                                  594
                                                                             494
                                                                                                      534
                                                                                                                                434
                                                                                                                                                         474
                                                                                                                                                                                  375
                                                                                                                                                                                                           414
                                                                                                                                                                                                                                    315
                                                                                                                                                                                                                                                              354
                                                                                                                                                                                                                                                                                      255
                                                                                                                                                                                                                                                                                                               294
                                                                                                                                                                                                                                                                                                                                          195
                                                                                                                                                                                                                                                                                                                                                                 234
                                                                                                                                                                                                                                                                                                                                                                                            135
                                                                                                                                                                                                                                                                                                                                                                                                                    174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001-050109/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                     CACTCCTCGTCCTGCTCCTGGGCCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1338
                                       TGCCCTTCGACCGCGTGCTGGACGAGCAGGGGACATTACGACGCCGTCACCGGCAAGT
                                                                                         GATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCT
                                                                                                                                            GAGGAGAGGCGGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGGAGTGCTCCGGTGCCTCCGC
                                                                                                                                                                                                GAGAGAAAGGCGAGGGCGGGAGGCCGGGGACCTCGAGGGGGACCCCGGGCCGC
                                                                                                                                                                                                                                  GCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCGGGGCTCCGGGCTACCGGCCCACGGCCTTGCCGGGCCCCGCGATGGCCCGCGACGGCCGCGACGGCCGCGACGGCCCCGCGGCCCCCGGGGCTCCGG
                                                                                                                                                                                                                                                                                     AGATCCCCAGCCTCTGCCCGGGCCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                        GGGAGGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCCTCCCGGTGCCAGCGCTATGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCACCAACCGAGCTGGAGGGTCCGGAGTAGCGAGCGCCCCGGAGGAGGCCATCGGGGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGGGACTGGGGTGACGGCAGGGGCAGGGGGGGGGCCTGGCCGGGGGAGAAGCGCGGGGGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGACTGGGGTGACGGCAGGGCAGGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGG
TCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCA
                                                                             GATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCT
                                                                                                                                GAGGAGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGC
                                                                                                                                                                                  GAGAGAAAGGCGAGGGCGGGAGG-CGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCCGC
                                                                                                                                                                                                                                                                                                                                         CACTCCTCGTCCTGCTCCTGGGCCTGGCCGGCCTCGCCCCCACTGGACGACAACA
                                                                                                                                                                                                                                                                                                                                                                                            GGGAGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCC
                         TGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 274-275;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0336536.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    228 A; 424 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         332pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1295; DB 2
Pred. No. 2e-229;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    226 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rango 257,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                         613
                                                  653
                                                                             553
                                                                                                      593
                                                                                                                               493
                                                                                                                                                         533
                                                                                                                                                                                  433
                                                                                                                                                                                                           473
                                                                                                                                                                                                                                   374
                                                                                                                                                                                                                                                             413
                                                                                                                                                                                                                                                                                      314
                                                                                                                                                                                                                                                                                                               353
                                                                                                                                                                                                                                                                                                                                                                 293
                                                                                                                                                                                                                                                                                                                                                                                            194
                                                                                                                                                                                                                                                                                                                                                                                                                    233
                                                                                                                                                                                                                                                                                                                                                                                                                                              134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74
                                                                                                                                                                                                                                                                                                                                          254
```

```
B
                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                    Qy
밁
               QΥ
                                   g
                                                   Ωy
                                                                         B
                                                                                       δÃ
                                                                                                              Ъ
                                                                                                                               Q
                                                                                                                                                    밁
                                                                                                                                                                  20
                                                                                                                                                                                        뫄
                                                                                                                                                                                                        ΩV
                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                   뫄
                                                                                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                         뮹
                  1314
                                                                                                                                                     1034
1274
                                     1214
                                                        1254
                                                                                                                1094
                                                                                                                                                                       1074
                                                                                                                                                                                                            1014
                                                                                                                                                                                          974
                                                                                                                                                                                                                               914
                                                                                                                                                                                                                                                 954
                                                                                                                                                                                                                                                                                     894
                                                                                                                                                                                                                                                                                                         794
                                                                                                                                                                                                                                                                                                                                              734
                                                                                                                                                                                                                                                                                                                                                                774
CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTT
                                                                                                              AGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTG
                                                                                                                                                    GGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATC
                                                                                                                                                                                           ACAACCTGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTG
                                                                                                                                                                                                   ACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTG
                                                                                                                                                                                                                               CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                                                                                                                                                                                                                         CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                                                                                                                                                                                                                                                    CAGACAGCACCTTCTCCGGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTG
                                                                                                                                                                                                                                                                             CAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTG
                                                                                                                                                                                                                                                                                                        ACCAAGTGTGGGTGCAGGTGGGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGA
                                                                                                                                                                                                                                                                                                                                              GGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGG
                                                                                                                                                                                                                                                                                                                                                        GGGGGTGGCCCAAGCCTCGCCTCTCGGGGGGGGCCATGGTGAGGCTTGAGG
                                                                                                                                                                                                                                                                                                                                                                                    CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTT
1328
                                                                                                                                   1193
                                                                                                                                                     1093
                                                                                                                                                                       1133
                                                                                                                                                                                           1033
                                                                                                                                                                                                            1073
                                                                                                                                                                                                                                                 1013
                                                                            1213
                                                                                             1253
                                                                                                                                                                                                                               973
                                                                                                                                                                                                                                                                    913
                                                                                                                                                                                                                                                                                                         853
                                                                                                                                                                                                                                                                                                                            893
                                                                                                                                                                                                                                                                                                                                               793
                                                                                                                                                                                                                                                                                                                                                                 833
                                                                                                                                                                                                                                                                                                                                                                                    733
                                                                                                                                                                                                                                                                                                                                                                                                       773
                                                                                                                                                                                                                                                                                                                                                                                                                           673
                                      1273
                                                                                                                                                                                                                                                                                      953
```

AAL39624 standard; DNA; 3248

AAL39624;

05-SEP-2002 (first entry)

Human secreted protein DNA SEQ Ħ ö 83

RESULT 14
AAL39624
ID AAL39
AC Antiarteriosclerotic; cytostatic; HIV; antiallergic; antianaemic; antiasthmatic; cardiant; vasotropic; neuroprotective; nootropic; SECP; anticonvulsant; antiparkinsonian; cerebroprotective; antiinflammatory; immunosuppressive; human secreted protein; cell proliferative disorder; arteriosclerosis; cancer; autoimmune; inflammatory disorder; AIDS; allergy; anaemia; asthma; cardiovascular disease; developmental disorder; ischaemic heart disease; congestive heart failure; neurological disorder; renal tubular acidosis; hypothyroidism; Alzheimer's disease; dementia; parkinson's disease; epilepsy; stroke; knockin humanised animal; transgenic animal; gene stroke; y; gene;

sapiens

WO200238602-A2

```
õ
                          밁
                                           δō
                                                                     뫄
                                                                                                 δ
                                                                                                                                   밁
                                                                                                                                                       Ş
                                                                                                                                                                                 B
                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                               д
                                                                                                                                                                                                                                                                 Ωy
                                                                                                                                                                                                                                                                                                                                                        The invention relates to an isolated human secreted protein (SECP)

completely be a specification. The polypeptide is useful for the diagnosing/treating of a specification. The polypeptide is useful for the diagnosing/treating of a construction of the diagnosing/treating of a disease with decreased/overexpression of SECP. Examples of disorders associated with abnormal expression of SECP include a cell proliferative disorder e.g. arteriosclerosis, cancers; autoimmune/inflammatory consective fields and the second associated with abnormal expression of SECP include a cell proliferative disorder e.g. atteriosclerosis, cancers; autoimmune/inflammatory consective fields and the second associated disorder e.g. consective heart failure, ischaemic heart disease; developmental disorder e.g. consective heart failure, ischaemic heart disease; developmental disorder e.g. consective heart failure, ischaemic heart disease; developmental disorder e.g. consective heart failure, hypothyroidism, neurological disorder e.g. consective polynucleotide and polypeptide are further useful for analysing the proteome of a tissue or a cell type. The polynucleotide is useful for creating knockin human disease, and for somatic or germline gene therapy, and turther for generating hybridisation probes useful in mapping the naturally occurring genomic sequence. This polynucleotide sequence represents the DNA of a human secreted protein of the invention.
                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 1222; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-NOV-2000;
09-NOV-2000;
16-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ding L,
Lu DAM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human secreted proteins and polynucleotides for diagnosing, treating preventing disorders of cell proliferative, cardiovascular, developmental, neurological and autoimmune/inflammatory disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ison
                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sanjanwal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (INCY-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-NOV-2000;
08-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-NOV-2001;
                                                                                 2205
                                                                                                                                                                                           2085
                                                                                                                                                                                                                                                2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002-519296/55.
DB; AAO21663.
  307
                                                                                                           187
                                                                                                                                                                127
                                                                                                                                                                                                                    67
                                                                                                                                                                                                                                                                           7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yao MG, Gandhi AR,
ala M, Thornton M, I
Hafalia AJA, Tang Y
Thangavelu K, Lee S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yao
                                                                                                                                                                                       GACGGCAGGGCAGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCACCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INCYTE
                                                                           GCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCTCGTCCT
 CTGCCCGGGCCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCC
                                                                                                                                                    GGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGGACT
                                                                                                                                                                                                                                             TCCTCTTGGAGTCTGGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGACTGGGGT
                                                                                                                                                                                                                                                           TTCTCTTGGAGTCTGGGAGGAAGGAAAGCGGAACCAGGAACCAGGACCTGGGGT
                                                                                                                                                                                                                                                                                                                                                        3248 BP;
                                                                                                                                    GGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 194-195; 229pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Duggan BM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-247505P.
2000US-249824P.
2000US-249824P.
2000US-252824P.
2000US-254305P.
2000US-256448P.
                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001WO-US47420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENOMICS
                                                                                                                                                                                                                                                                                                                                                     565 A;
                                                                                                                                                                                                                                                                                                              78.8%;
90.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hi AR, Baughn MR, Swarnakar; on M, Elliott VS, Lu Y, Giet Tang YT, Bandman O, Warren , Lee S, Xu Y, Yang J, Lal Sapperstein SK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INC
                                                                                                                                                                                                                                                                                                                                                      1058
                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                 Score 1084.8;
Pred. No. 1.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                        Ç
                                                                                                                                                                                                                                                                                                                                                        946 G;
                                                                                                                                                                                                                                                                                                1.1e-190;
ches 2;
                                                                                                                                                                                                                                                                                                                                                      679 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Swarnakar A, W
Lu Y, Gietzen
                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                          24; Length
                                                                                                                                                                                                                                                                                                                                                        0 other;
                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Walia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       χĮ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Honchell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Burford
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       z
                                                                              2264
                                                                                                                                    2204
                                                                                                                                                                                        2144
                                                                                                                                                                                                                 126
                                                                                                                                                                                                                                             2084
  366
                                                   306
                                                                                                        246
                                                                                                                                                              186
                                                                                                                                                                                                                                                                        66
                                        밁
                                                       Qγ
                                                                                          В
                                                                                                                  δÃ
                                                                                                                                                 밁
                                                                                                                                                                   δã
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                             ·Ωy
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                        ΩV
                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
15
                                                                                                                                                                         1207
                                                                                                                                                                                                      3039
                                        3219
                                                                 1327
                                                                                                                                                 3099
                                                                                                                                                                                                                               1147
                                                                                                                                                                                                                                                          2979
                                                                                                                                                                                                                                                                                   1087
                                                                                                                                                                                                                                                                                                               2919
                                                                                                                                                                                                                                                                                                                                        1027
                                                                                                                                                                                                                                                                                                                                                                 2859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2379
                                                                                                                                                                                                                                                                                                                                                                                           967
                                                                                                                                                                                                                                                                                                                                                                                                                                                907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487
                                                     TCAATAAACCTAAGAACCCTCATAAAAAAA
                                                                                                             TCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCA 1146
                                                                                                                                                                                                                                                                                                                            CCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTC
                                                                                                                                                                                                                                                                                                                                                                CTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAG
                                                                                                                                                                                                      TGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGGCAAGTGTAA
                                                                                                                                                                                                                                                        TCCGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCA
                                                                                                                                                                                                                                                                                                              CCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCAGCCTCGCTCTCGGGGGGGGCCCATGGTGAGGCTTGGAGCCTGAGGACCAAGTGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTTCCAGTTTTTTCGGGGGGGTGGCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTGGTGAAGAATGCCAATCCATTGCCTCTTTCCTTCCAGTTTTTCGGGGGGTGGCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCCAAGCGCTCCGAGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1026
                                                                                                                                                                                                                                                                                                                                                                                                                     2858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    426
                                                                                                                                                                                                                                                                                                              2978
                                                                                                                                                                                                                                                                                                                                                                2918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2498
                                                                                                                                                                                                                                                                                                                                                                                                                                                966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           546
```

```
AAS76911
IID AAS7
XX
AC AAS7
XX 13-F
XXX Humm
KW Hooc
XX WO2(
XX HOM
OS 
                                                                    Ş
                                                                                                                                                                  В
                                                                                                                                                                                                                                           Ş
    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CC polynicleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. AAS64197-AAS94564 represent novel human
CC diagnostic coding sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO

of the polypeptide and polypeptide and in the printed of the polypeptide and the printed and the printed of the polypeptide and the printed of the polypeptide and the printed and
                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 1042; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1082 BP; 193 A; 334 C; 353 G; 202 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, oligomers, and for chromo and gene mapping, and in recombinant production of (II). The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID No 12715; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-639362/73.
P-PSDB; ABG12724.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Drmanac RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-MAR-2000; 2000US-0540217.
23-AUG-2000; 2000US-0649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-MAR-2001; 2001WO-US08631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA encoding novel human diagnostic protein #12715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS76911 standard; cDNA; 1082 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (HYSE-) HYSEQ INC.
                                                                                     359
    61
                                                                                                                                                                      L
GGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCGGGGCTCCGGGAGAG 418
                                                                                                                                                                                                                                               CCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAG 358
                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Liu C,
                                                                                                                                                                                                                                                                                                                                                                   67.1%;
96.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YT;
                                                                                                                                                                                                                                                                                                                            Score 923.6; DB 23; Length 1082;
Pred. No. 4.4e-161;
0; Mismatches 24; Indels 14;
                                                                                                                                                                                                                                                                                                                            Indels 14; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chromosome
    120
                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                            9;
```

Search completed: June 21, 2003, 09:46:23 Job time: 376 secs

THIS PAGE BLANK (USPTO)

Run

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM nucleic. -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                         1322.2
   692.8
606
605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length:
length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-944-944-41
1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          June 21, 2003, 09:40:55; Search time 79 Seconds (without alignments) 5345.492 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             441362 seqs, 153338381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDENTITY_NUC Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
                                                                                                                   Issued_Patents_NA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Copyright (c) 1993 - 2003 Compugen
                    /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/Backfiles1.seq:*
 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
20000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gapext 1.0
US-09-336-536-8
US-09-188-930-218
US-09-188-930-30
US-09-336-536-9
US-09-336-536-74
US-09-336-536-74
US-09-188-930-26
US-09-188-930-26
US-08-463-911-1
US-09-140-804-29
US-09-140-804-29
US-09-140-804-31
US-09-140-804-31
US-09-140-804-31
US-09-13-669-11
US-09-056-556-69-11
US-09-056-556-182
US-09-072-596-177
4 US-09-072-596-177
4 US-09-072-596-177
                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-140-804-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
 Sequence 1
Sequence 2
Sequence 2
Sequence 3
Sequence 2
Sequence 1
Sequence 7
Sequence 7
Sequence 7
Sequence 2
Sequence 3
Sequence 3
Sequence 3
Sequence 1
                                                                                                                                 23, Appl
28, Appl
29, Appl
31, Appl
30, Appl
                                                                                                                                                                                                                 218, App
30, Appl
9, Appl
10, Appl
74, Appl
74, Appl
1, Appl
1
                                                                                                                                                                                                                                                                                                                                                                                 1, Appli
1, Appli
2, Appli
8, Appli
                                                                                                                                                                                                                                                                            δĀ
                                                                                                                                                                                                                                                                                                                    В
                                                멂
                                                                              Š
                                                                                                                 В
                                                                                                                                           δÃ
                                                                                                                                                                                Ъ
                                                                                                                                                                                                               ΩV
                                                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-140-804-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFITMENT: SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
NAME/KEY: CDS
                                                                                                                    191
                   340
                                                                                                                                                  220
                                                                                                                                                                                                                                                       71
```

ALIGNMENTS

```
US-09-140-804-1 (198)...(926)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Application US/09140804 Patent No. 6197930 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity Matches 1324; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                              GGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGC
                                                                                                                 ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCC
                                                                                ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCC
                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                              96.0%;
                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                               Score 1322.2;
Pred. No. 5.7e
                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                .7e-257;
les 3;
                                                                                                                                                                                                                                                                                                                                                                                                               DB 4;
                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                               Length 1347;
```

0,

Gaps

0;

399

B 6 문 5 B

δ В

```
RESULT 2
US-09-336-536-1
ď
                                                                  1360
                                                                                                                                                                1151
                                                                                                                                                                                                     1091
                                                                                                                                                                                                                                                                                                1000
                                                                                                                                                                                                                                                                              971
                                                                                                                                                                                                                                                                                                                                  940
                                                                                                                                                                                                                                                                                                                                                     851
                                                                                                                                                                                                                                                                                                                                                                                                                              731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           551
                                                                                                                                                                                                                                                                                                                   911
                                                                                                                                                                                                                                                                                                                                                                        980
                                                                                                                                                                                                                                                                                                                                                                                                            820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         371
                                                                                                                                                                                                                                                                                                                                                                                           791
                                                                                                                                                                                                                                                                                                                                                                                                                                                 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           400
                                                                                    TGGGGTGCTCTCTTGCTGGTCCTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCT
                                                                                                                                                             CTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG
                                                                                                                                                                                                                                                                                                                                                    TGCCAĞCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAG
                                                                                                                                                                                                                                                                                                                                                                                         GCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                             CGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAG
                                                                                                                                                                                                                                       AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTTGCCTCTTT
                                                                 AAAAAA
                                                                                                                                                                                                    GGCTGTCTGCGATCAGGTCTGGCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCGGGGCTCCGGGAGAGAAAGGCGAGGCCGGGAGGCCCGGGACTGCCGGGACCTCCAGG
                                                                                                                                                                                                                                                                             AGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCGGGGCTCCGGGAGAGAAAAGGCGAGGGCGGGAGGCCGGGGACTGCCGGGACCTCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGCCACCATGGCAGGCCAGGGCTTGCCGGGGCCGCGATGGCCGCCGACGGCCGCCGACGGCGC
                                                                   1366
                                                                                                                                           1299
                                                                                                                                                                                                                    1179
                                                                                                                                                                                                                                        1090
                                                                                                                                                                                                                                                          1119
                                                                                                                                                                                                                                                                             1030
                                                                                                                                                                                                                                                                                              1059
                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                     939
                                                                                                                                                                                                                                                                                                                                                                                           850
                                                                                                                                                                                                                                                                                                                                                                                                           879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   759
                                                                                                                                                               1210
                                                                                                                                                                                                                                                                                                                  970
                                                                                                                                                                                                                                                                                                                                                     910
                                                                                                                                                                                                                                                                                                                                                                                                                              790
                                                                                                                                                                                                                                                                                                                                                                                                                                                819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; LENGTH: 1338
; TYPE: DNA
; ORGANISM: Homo s
US-09-336-536-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/09336531
Patent No. 6406884
GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: BOSSONE, S.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTI
FILE REFERENCE: 7853-144
CURRENT APPLICATION NUMBER: US/09,
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 1
LENGTH: 1338
          밁
                       δÃ
                                             닭
                                                          S
                                                                              밁
                                                                                                 δÃ
                                                                                                                         밁
                                                                                                                                      δÃ
                                                                                                                                                             밁
                                                                                                                                                                           δÃ
                                                                                                                                                                                             밁
                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                    δõ
                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 1310; Conserv
           734
                            774
                                                674
                                                               714
                                                                                    614
                                                                                                       654
                                                                                                                         554
                                                                                                                                           594
                                                                                                                                                              494
                                                                                                                                                                                534
                                                                                                                                                                                                   434
                                                                                                                                                                                                                      474
                                                                                                                                                                                                                                        375
                                                                                                                                                                                                                                                           414
                                                                                                                                                                                                                                                                             315
                                                                                                                                                                                                                                                                                              354
                                                                                                                                                                                                                                                                                                                 255
                                                                                                                                                                                                                                                                                                                                   294
                                                                                                                                                                                                                                                                                                                                                      195
                                                                                                                                                                                                                                                                                                                                                                       234
                                                                                                                                                                                                                                                                                                                                                                                          135
                                                                                                                                                                                                                                                                                                                                                                                                                                                 114
                                                                                                                                                                                                                                                                                                                                                                                                                              75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGGACTGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGAGAAACCGCGGGGGCTGG
                                               TCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCA
                                                                                                                       TGCCCTTCGACCGCGGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGT
                                                                                                                                                                       GATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCT
                                                                                                                                                                                                             GAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGC
                                                                                                                                                                                                                                      GAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGC
                                                                                                                                                                                                                                                                            AGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                   GGGAGGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                            GGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGG
                                                                                                                                                               GATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCT
                                                                                                                                                                                                   GAGGAGAGGCGGGACCCGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGC
                                                                                                                                                                                                                                                                                                                                                    CACTCCTCGTCCTGCTCCTGCGCCCCCGCCCGCTCGCCCCCACTGGACGACAACA
                                                                                                                                                                                                                                                                                                                                                                                          GGGAGGGGGGACTGCGAGAGGACCCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94.2%;
nilarity 99.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US/09336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US/09/336,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1296.6; DB 4
Pred. No. 7.7e-252;
0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
           793
                              833
                                                733
                                                                                     673
                                                                                                       713
                                                                                                                                           653
                                                                                                                                                             553
                                                                                                                                                                                593
                                                                                                                                                                                                                      533
                                                                                                                                                                                                                                                           473
                                                                                                                                                                                                                                                                                              413
                                                                                                                                                                                                                                                                                                                                                                     293
                                                                                                                                                                                                                                                                                                                                                                                                                                               173
                                                                                                                         613
                                                                                                                                                                                                   493
                                                                                                                                                                                                                                        433
                                                                                                                                                                                                                                                                             374
                                                                                                                                                                                                                                                                                                                 314
                                                                                                                                                                                                                                                                                                                                  353
                                                                                                                                                                                                                                                                                                                                                     254
                                                                                                                                                                                                                                                                                                                                                                                          194
                                                                                                                                                                                                                                                                                                                                                                                                           233
                                                                                                                                                                                                                                                                                                                                                                                                                              134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74
```

δ

8 8

5 밁 δδ B

Ş 밁 δδ B

5 B S 몽 δ 밁 Š 밁 δ 뮻 Ş

Qy Db

유양

밁

```
; LENGTH: 728
; TYPE: DNA
; ORGANISM: Homo s
US-09-336-536-2
                                                                                                                                                                                                                                                                                                                     RESULT
US-09-3
                                                                                                                                                                                                                                                                                                                                                                                               β δ
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qγ
                                 В
                                                      Q
                                                                            B 8
                                                                                                                                                                                                                                                                                                                                                                        Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δõ
   밁
              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ŷ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                 Query Match
Best Local S
Matches 728
                                                                                                                                                                                                                                         Sequence 2, Application US/09336536
Patent No. 640684
GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: BOSSONE, S.
APPLICANT: BOSSONE, S.
APPLICANT: BOSSONE, S.
APPLICANT: SECRETED PROTEINS AND FILE REFERENCE: 7853-144
                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 2
LENGTH: 728
                                                                                                                                                                                                                                                                                                                      -09-336-536-2
                                                                                                                                                                                                                                                                                                                                                                              1314
                                                                                                                                                                                                                                                                                                                                                                                                                                      1154
                                                                                                                                                                                                                                                                                                                                                                                                  1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           914
                  347
                                                         287
                                                                                               227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       794
  121
                                      61
                                                                                                                  1 Similarity
728; Conserv
                                                                         ATGAGGCCACTCCTCGTCCTGCTGCTGCTGGCGGCTGGCGGGCTGGCCCCCACTGGAC
GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                         CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGTAGAGCACTCTCCGTCCTGCTGCTGCAGGAATGGGAACAGTGGCTGTCTGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTT
                                                                                                                  Conservative
                                                                                                                                                                 sapiens
                                                                                                                         52.1%;
                                                                                                                 0,
                                                                                                                        Score 717; DB 4;
Pred. No. 1.4e-135;
                                                                                                                  Mismatches
                                                                                                                                                                                                                                                     USES
                                                                                                                                                                                                                                                    THEREOF
                                                                                                                 0;
                                                                                                                                 Length 728;
                                                                                                                 Indels
                                                                                                                1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1253
                                                                                                                                                                                                                                                                                                                                                                                                1273
                                                                                                                                                                                                                                                                                                                                                                                                                  1313
                                                                                                                                                                                                                                                                                                                                                                                                                                     1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1013
                   406
                                     120
                                                       346
                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          973,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     853
                                                                                                               ; LENGTH: 1263
; TYPE: DNA
; ORGANISM: Mus n
US-09-336-536-8
                                                                                                                                                                                                   ; Sequence 8, Application US/09336536; Patent No. 6406884; GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: Mossone, S.
TITLE OF INVENTION: SECRETED PROTEINS AND FILE REFERENCE: 7853-144
             Ωy
                                    밁
 밁
                                                     δÃ
                                                                                                                                                                                                                                                                               RESULT 4
US-09-336-536-8
                                                                                                                                                                                                                                                                                                                                     ğ
                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                     日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ď
                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 8
LENGTH: 1263
                                                                                   Query Match
Best Local
                                                                           Matches
                                                                                                                                                                                                                                                                                                                                      947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                  249
                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                  827
                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                       767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 467
 157
                                   707
                                                                          al Similarity
917; Conserv
                                                                                                                                                                                                                                                                                                                    7 GTCTTTGCT 955
||||||||
| GTCTTTGCT 728
TGCTTCTGGGTCTGGTCTCAGGCTCTCCTCCTCCTCGACGACAACAAGATCCCCAGCCTGT
                  TGCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                             CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGGGTGACCTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCAAGACAGACAGCCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                    ATCAAGACAGACAGCTTCTCCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTTTCGGGGGGGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCGCGGGGGGGCCATGGTGAGGCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGCCGCGAGGAGAGGCGGGACCCGCGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCGCGAGGAGAGGCCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCCGGGAGAAAAGGCGAGGGCGGGAGG-CGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTCGAGGGGACCCCC
                                                                          Conservative
                                                                                                                          musculus
                                                                                  50.3%;
78.0%;
                                                                          0,
                                                                                  Pred. No. 1.1e-130;
                                                                          Mismatches
                                                                                                                                                                                                              AND
                                                                                                                                                                                                              USES
                                                                          Indels
                                                                                            Length 1263;
                                                                          22;
                                                                          Gaps
216
                  308
                                     156
                                                      248
                                                                                                                                                                                                                                                                                                                                                                             946
                                                                                                                                                                                                                                                                                                                                                                                                659
                                                                                                                                                                                                                                                                                                                                                                                                                                    599
                                                                                                                                                                                                                                                                                                                                                                                                                                                       826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239
```

```
1218
                 1326
                                                                                                                      1050
                                                                                                                                                                                                                        1029
                                                                                                                                                                                1089
                                                                                                                                                              996
                                                                                                                                                                                                    937
                                                                                                                                                                                                                                           877
                                                                                                                                                                                                                                                                                                                                           849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             549
                                                                                                                                                                                                                                                              969
                                                                                                                                                                                                                                                                                   817
                                                                                                                                                                                                                                                                                                      909
                                                                                                                                                                                                                                                                                                                                                                 697
                                                                                                                                                                                                                                                                                                                                                                                                        637
                                                                                                                                                                                                                                                                                                                                                                                                                                               577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       217
                                                                                                                                                                                                                                                                                                                          757
                                                                                                                                                                                                                                                                                                                                                                                    789
                                                                                                                                                                                                                                                                                                                                                                                                                           729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                 TGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCAATAAACCTAAGAACCCTCATAAAAAAAAAAA 1361
                                                                                       CCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTG----
                                                                                                                               GGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGCCAGGTGTAAGT 1208
                                                                                                                                                                        CGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATG
                                                                                                                                                                                                                                                                                 CAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                TGGTGAAGAATGGCGAATCCATTGCCTTTTCTTCCAGTTTTTCGGGGGGTGGCCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAGCGATCCGAGAGCCGGGTACCTCCGCCAGCCGACACACCCCTACCTTTCGACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTCGACCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCGGGGCCCACCGGGCCTGCCGGGATGCTCCGCTTCCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGGACCCCCGGGCCGAGGAGAGAGGCGGGAC
CTTAATAAACCTAAAATCCTCAAAAAAAAAAAAAA
                                     CCTCTAGGTCCCTGACTCCATCTCTGCTGCTCCCAGGGCAGGCCTTTTTCTCAGAGGTCA
                                                                                                                     GAGCAGTGGCTGCGTTTCTGCCCCAGGACTTTA-GAATGCAGTAGGCTGGCAGCTGTGGGT
                                                                                                                                                             AGTCCCACTGCTGGCAATGAATGGAGACA--GGCTGTCTGAGGTCA----AGACAGCGTG
                                                                                                                                                                                                                                          ACCCGGAGCTGGCACTTGCTCCTCAGTGGAGGGTGTGACACTAACCCGCGCAGCGCATAC
                                                                                                                                                                                                                                                      AAAGTGAGCTCATGCTCTCACCTCCTAGAAGGAGGGTGTGAGGCTGACCAGCTCATCC
                                                                                                                                                                                                                                                                                                     CCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGC
                                                                                                                                                                                                                                                                                                                                                                 CAGCCTCGCTCTCAGGGGGTGCGATGGTAAGGCTAGAACCTGAGGACCAGGTGTGGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                        TTGTCAAAAACGGGCAGTCCATCGCCTCTTTCTTCCAGTATTTTGGGGGGGTGGCCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCATGGGGGCTATCGGGCCTGCGGGGGGGGGTGCTCGGTACCCCCACGATCAGCCTTCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCGGGAGACCGGGACTACCTGGCCCACGTGGGGAGCCCGGGGCCGCGTGGAGAGGCCAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGAAGCTCCGGGAGAAAAGGCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGCGATGGCCGGACGGCGACGGCGCGCGCGCGCGCTCCGGGAGAGAAAAGGCGAGG
                                                                                                 1265
                                                                                                                     1108
                                                                                                                                                            1049
                                                                                                                                                                               1148
                                                                                                                                                                                                                                                             1028
                                     1217
                                                                                                                                                                                                                       1088
                                                                                                                                                                                                   995
                                                                                                                                                                                                                                           936
                                                                                                                                                                                                                                                                                  876
                                                                                                                                                                                                                                                                                                     968
                                                                                                                                                                                                                                                                                                                         816
                                                                                                                                                                                                                                                                                                                                            908
                                                                                                                                                                                                                                                                                                                                                                                   848
                                                                                                                                                                                                                                                                                                                                                                                                       696
                                                                                                                                                                                                                                                                                                                                                                                                                         788
                                                                                                                                                                                                                                                                                                                                                                                                                                              636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   428
                                                                                                                                                                                                                                                                                                                                                                756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           368
       밁
                     δŌ
                                              밁
                                                                 Š
                                                                                      닭
                                                                                                    õ
                                                                                                                             В
                                                                                                                                             δõ
                                                                                                                                                                     뫄
                                                                                                                                                                                    Ş
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                δõ
                           660
                                               571
                                                                   600
                                                                                       511
                                                                                                          540
                                                                                                                              451
                                                                                                                                                  480
                                                                                                                                                                       391
                                                                                                                                                                                          420
                                                                                                                                                                                                              331
                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                     271
                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                           211
                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                      186
                                                                                                                                                                                                                                                                                                                                                                                             126
                                                                                                                                                                                                                                                                                                                                                                         91
                                                                                                                                                                                                                                                                                                                                                                                                                31
```

, da da

ΩV

B 6

g VQ оу оу оу ор

δδ Ad

8 8 8 8 g Q

유 성

유 양 명

40 40 40

B &

Oy Oy

밁

```
Sequence 218, Application US/09188930A
Patent No. 6150502
GENERAL INFORMATION:
APPLICANT: Watson, James D.
APPLICANT: Strachan, Lorna
APPLICANT: Sleeman, Matthew
APPLICANT: Onrust, Rene
APPLICANT: Onrust, Rene
APPLICANT: Murison, James Greg
APPLICANT: MURISON, James Greg
TITLE OF INVENTION: Compositions Isolated Fro
TITLE OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000_1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT FILING DATE: 1998-11-09
NUMBER OF SEQ ID NOS: 348
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 218
LENGTH: 1001
TYPE: DNA
ORGANISM: Rat
US-09-188-930-218
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
US-09-188-930-218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 739; Conserv
   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                 CCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCT
                                                                                                                                                                                                                                                        AGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGGAGTGCTCGGTGCCTCCGCGATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGC
                                                                                                             TCGACCGTGTGCTGCATGAGCAGGGACATTACGATGCCACTACCGGCAAGTTCACCT
                                                                                                                                TCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCT
                                                                                                                                                                                                                                                                                                                                AAGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCCGCGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                       GCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCCGGGGCTCCGGGAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACTACAAGAGAGGATCCTGGCGTCTGGGCCTCCTGGGTCATCACCATGAGGCCACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGACGGCAGGGCAGGGCGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCACCAAC
     GCCAAGTGCCTGGTGTCTACTACTTTGCTGTCCATGCCACTGTCTACCGGGCCAGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAGCCTGTGTCCCGGGCAGCCCGGCCTCCCCAGGCACCAGGCCACCACCGGCAGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGCCCTGCTTCTGGGTCTGGCATCAGGCTCTCCTCCTCTGGACGACAACAAGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCTGAGGAAGCCATTCAAAGCGAGCAGCTGGGAAGCTGGGGAAGCCGGGAAGGGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -CGAGAGGACCCCGGCGTCCGGGCCTCCCGGTGCCAGCGCTATGAGGCCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44.0%;
78.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 606; DB 3;
Pred. No. 2.7e-113;
0; Mismatches 195;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 From
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                             630
     779
                                                                                                                                                                                                                                                          510
                                                                                                                                                                                                                                                                                                                                  450
                                                                                                                                                                                                                                                                                                                                                                     479
                                                                                                                                                                                                                                                                                                                                                                                                         390
                                                                                                                                                                                                                                                                                                                                                                                                                                           419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
```

```
APPLICANT: Watson, James D.
APPLICANT: Strachan, Lorna
APPLICANT: Strachan, Lorna
APPLICANT: Sleeman, Matthew
APPLICANT: Onrust, Rene
APPLICANT: Onrust, Rene
ITITLE OF INVENTION: Compositions Isolated From Ski
TITLE OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000.1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT FILING DATE: 1998-11-09
NUMBER OF SEQ ID NOS: 348
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 30
LENGTH: 1015
TYPE: DNA
COCANITAM: Rat
                                                                                 QΥ
                                                                                                                                                                          뫄
                                                                                                                                                                                                   ρ
                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
US-09-188-930-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
 밁
                     δ
                                                          밁
                                                                                                                 В
                                                                                                                                        8
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 30, Application Patent No. 6150502
                                                                                                                                                                                                                                                                                                                                                                                                                    -09-188-930-30
                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: unsure
LOCATION: (545)...(545)
                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                             360
                                                                                       300
                                                                                                                                                240
                                                                                                                                                                            165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             691
                                                          285
                                                                                                                                                                                                        186
                                                                                                                                                                                                                                   105 GTCTGAGGAAGCCATTCAAAGCGAGCAGCTGGGAGAGCTGGGGAAGCCGGGAAGGGCCTAC
                                                                                                                                                                                                                                                    126 TGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGAGCCGGGAGGGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   751
                                                                                                                                                                                                                                                                                               45
                                                                                                                                                                                                                                                                                                             66 TGACGGCAGGGCAGGGGCCCCTGGCCGGGGGGAGAAGCCGCGGGGGCTGGAGCACCAACC 125
                                                                                                                                                                                                                                                                                                                                                          738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCCCAAGCCAGCCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAG
                                                                                      CCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGG
                                                                                                                 TTGCCCTGCTTCTGGGTCTGGCATCAGGCTCTCCTCCTCTGGACGACAACAAGATCC
                                                                                                                                 TCGTCCTGCTCCTGGGGCCTGGCGGCCGGCTCGCCCCACTGGACAACAACAAGATCC
                                                                                                                                                                          TG-----CGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCC
                                                                                                                                                                                                                                                                                            TGTCAGCGAGGGCAGGGGCTGCCTGGTTGGGGTAGGAGTGGGAGCAGGGCCAGCAGGAGG 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATACAGTGAACCCGGAGCTGGCACTTGCTCCTAGTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACCTTCTCGGATTTCTCGTCTATTCTGACTGGCACAGCTCCCCCAGTCTTCGCTTAAA 930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATGGGTTCAGGTGGGTGATTACATTGGCATCTATGCCAGCATCAAAACAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCAAAGCCAGCCTCGCTCTCAGGGGGTGCGATGGTGAGGCTAGAACCTGAGGACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCCGGAGCTCCCGGGAGAGA
                             GCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCCGGGGCTCCGGGAGAGA
                                                          CCAGCCTGTGTCCCGGGCAGCCCGGCCTCCCAGGCACCACGGCCACCACGGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG
                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                      43.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/09188930A
                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                    Pred.
                                                                                                                                                                                                                                                                                                                                                                      Score 605; DB 3; Pred. No. 4.3e-113;
                                                                                                                                                                                                                                                                                                                                                        Mismatches 196; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Skin
                                                                                                                                                                                                                                                                                                                                                                                  Length 1015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cells
                                                                                                                                                                                                                                                                                                                                                       6;
                                                                                                                                                                                                                                                                                                                                                       Gaps
                           419
                                                                                                                                                                                                      239
                                                                                                                                                                                                                                                                185
 404
                                                        344
                                                                                      359
                                                                                                                   284
                                                                                                                                               299
                                                                                                                                                                            224
                                                                                                                                                                                                                                   164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        870
                                                     밁
 밁
                  δÃ
                                                                                 δÃ
                                                                                                                                                                            ; ORGANISM: Mus musculus US-09-336-536-9
                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
US-09-336-536-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 9
LENGTH: 729
                                                                                                                Query Match 41.0%;
Best Local Similarity 85.9%;
Matches 626; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 9, Application Patent No. 6406884
                                                                                                                                                                                                        TYPE: DNA
                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     465
             287 GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCT
GACAACAAGATCCCCAGCCTGTGTCCCGGGCAGCCCGGCCTTCCAGGCACACCAGGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATACAGTGAACCCGGAGCTGGCACTTGCTCCTAGTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGG 999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATGGGTTCAGGTGGGTGTGGGTGATTACATTGGCATCTATGCCAGCATCAAAACAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCAAAGCCAGCCTCGCTCTCAGGGGGGTGCGATGGTGAGGCTAGAACCTGAGGACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGAGGCCTGAGGACCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCAAGTGCCTGGTGTCTACTACTTTGCTGTCCATGCCACTGTCTACCGGGCCAGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCGACCGTGTGCTCCAATGAGCAGGGACATTACGATGCCACTACCGGCAAGTTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTTCAGTGCCAAGCGATCANAGAGCCGGGTACCTCCGCCAGCCGACACCCCCTACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGGAGTGCCTCGGTGCCTCCGCGATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGGCGAGGGCGGGACCTACCTGGGCCACGTGGGGAGCCCGGGCCGCGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGGCGAGGGCGGAGGCCGGGACCTCGAGGGGACCCCCGGGCCGGGCCGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCAGGACCTGTGGGGGCTATCGGGCCCTGCGGGGGAGTGCTCGGTGCCCCCACGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                 US/09336536
                                                                                                                 0
                                                                                                                Score 564.2; DB 4;
Pred. No. 6.2e-105;
0; Mismatches 103;
                                                                                                                                                                                                                                                                                                                         AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         984
                                                                                                                 Indels
                                                                                                                                             Length
                                                                                                                 0;
                                                                                                                 Gaps
                           346
                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                539
120
                                                                                      286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               644
```

0,

```
; OTHER INFORMATION:
; OTHER INFORMATION:
US-09-140-804-10
                                                                                                                                                                                                                                                                               RESULT 8
US-09-140-804-10
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
Best Local Similarity 57.6%;
Matches 419; Conservative 14
                                                                                                                    SEQ ID NO 10
LENGTH: 729
                                                                                                                                                                                                                                               Sequence 10, Application US/09140804 Patent No. 6197930 GENERAL INFORMATION:
                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                       TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN FILE REFERENCE: 97-49
                                                                                                                                                                                                                           APPLICANT: Sheppard, Paul O. APPLICANT: Humes, Jacqueline M.
                                                                                      TYPE: DNA ORGANISM: Artificial FEATURE:
                                                                                                                                                                                                                                                                                                                                         947
                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   467
                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                     887
                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                              827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     347
                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATTTTGGGGGGTGGCCCAAGCCAGCCTCGCTCTCAGGGGGTGCGATGGTAAGGCTAGAA
                                                                                                                                                                                                                                                                                                                                   GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                     CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGGCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCACCCTTGCCCTTCGACCGCGTGCTGCTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGCCGCGAGGAGAGGCGGGACCCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                  ATCAAGACAGACAGTACCTTCTCTGGATTTCTCGTCTATTCTGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                            ATCAAGACAGACAGCATCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                          CCTGAGGACCAGGTGTGGGTGCAGGTGGGCGTGGTTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACACCCCTACCTTTCGACCGTGTGCTGCTAAATGAGCAGGGCCATTACGACCCCACTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCCCACGATCAGCCTTCAGTGCCAAGCGATCCGAGAGCCGGGTACCTCCGCCAGCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCCGGGAGAAAGGCGAGGGCGGGAGACCGGGACTACCTGGCCCACGTGGGGAGCCC
                                                                Degenerate nucleotide polypeptide of SEQ ID
                                                                                              Sequence
               145;
             Score 504; DB 4;
Pred. No. 7.5e-93;
5; Mismatches 164
                                                               sequence encoding NO:2.
               164;
                                                                                                                                                                                                                  HOMOLOGS
                               Length 729;
               Indels
                                                                            the
             0
                                                                           zsig39
             Gaps
                                                                                                                                                                                                                                                                                                                                                                                     946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                                                                                                                                                                                                                                                                              886
                                                                                                                                                                                                                                                                                                                                                                                                                                                 009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     406
                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
             0
                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                 ΩV
                                                                                                                                                                                                                                                                                                                                                                                                         ₽
                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                            US-09-336-536-74
                                                                                                                                                                                                                                     日
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ϋ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ρy
                                          CURRENT APPLICATION NUMBER: US/09/336, CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 74
LENGTH: 601
                                                                                                                                                            Sequence 74, Applica Patent No. 6406884 GENERAL INFORMATION:
                                                                                                        APPLICANT: Leiby, K.
APPLICANT: MCKBY, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED
FILE REFERENCE: 7853-144
                                   TYPE: DNA
                       ORGANISM: Rattus
              FEATURE:
                                                                                                                                                                                                                                                         947
                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                  887
                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      647
                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                            827
                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                    767
                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                              707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                     GINTIYGC
                                                                                                                                                                                                                                                                                                                                                                                                        CCNCCNMGNWSNGCNTTYWSNGCNAARMGNWSNGARWSNMGNGTNCCNCCNCCNWSNGAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCCGCGAGGAGAGGCGGGACCCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCNCCNGGNGARAARGGNGARGGNGGNMGNCCNGGNTINCCNGGNCCNMGNGGNGAYCCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GICTITICC
                                                                                                                                                                                                                                                                                         ATCAAGACAGACAGCACCTICTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                    CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACCTCCGAGGGGACCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAYGGNWSNCARGGNYTNCCNGGNMGNGAYGGNMGNGAYGGNMGNGAYGGNGCNCCNGGN
                                                                                                                                                                                                                                                                             ATHAARACNGAYWSNACNTTYWSNGGNTTYYTNGTNTAYWSNGAYTGGCAYWSNWSNCCN
                                                                                                                                                                                                                                                                                                                                                                 TTYTTYGGNGGNTGGCCNAARCCNGCNWSNYTNWSNGGNGGNGCNATGGTNMGNYTNGAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGNCCNMGNGGNGARGCNGGNCCNGCNGGNCCNACNGGNCCNGCNGGNGARTGYWSNGTN
                                                                                                                                                                                  Application US/09336536
                        norvegicus
                                                                                                                                                                                                                                                        954
                                                                                                                    PROTEINS
                                                                                                                     AND
                                                                                                                     USES
                                                                                                                     THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   406
                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                   946
                                                                                                                                                                                                                                                                                                                                            886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           466
```

600 826 540 766 706

646 360 586 526 240

300

180

```
; LENGTH: 393
; TYPE: DNA
; ORGANISM: Rat
US-09-188-930-26
                                                                                                           APPLICANT: Watson, James D.

APPLICANT: Strachan, Lorna
APPLICANT: Sleeman, Matthew
APPLICANT: Sleeman, Matthew
APPLICANT: Onrust, Rene
APPLICANT: Orrust, Rene
TITLE OF INVENTION: Compositions Isolated From Ski
TITLE OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000.1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT FILING DATE: 1998-11-09
NUMBER OF SED ID NOS: 348
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; OTHER INFORMATION: n=a, c, c
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                US-09-188-930-26
                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 365
                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                       Patent No.
                                                                                                                                                                                                                                                                                                                                 Sequence
 Query Match
Best Local Similarity
Matches 250; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                         574
                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              156
                                                                                                                                                                                                                                                                                                                    26, Application o. 6150502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          126 TGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              al Similarity
365; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                66 TGACGGCAGGGCAGGGGCCCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGCACCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCTGAGGAAGCCATTCAAAGCGAGCAGCTGGGAGAGCTGGGGAAGGGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified_base
all "n" posit
                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTCAGCGCCAAGCGCTCCGAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTTGCCGGGCCGCATGGCCGCGACGGCCGCGACGGCGCCCGGGGGCTCCGGGAAGAGA 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGCCACCATGGCAGCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCGTCCTGCTCCTGGGCCTGGCCGGCCGCCCCCACTGGACGACAACAAGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGACTACAAGAGGATCCTGGCGTCTGGGCCTCCTGGGTCATCACCATGAGGCCACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TG-----CGAGAGGACCCCGGCGTCCCGGGCTCCCAGCCCTATGAAGGCCAACTCC
                                                                                                                                                                                                                                                                                                                                                                                                         GCTTCAGTGCCAAGCGATCAGAAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCAGGACCTGTGGGGGCTATCGGGCCTGGNGGGGAATGCTCGGTGC--CCCACGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGGCGAGGCGGGAGACCGGGACTACCTGGGCCACGTNGGGAGCCCGGGCCGGCCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAG 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCTGCCTGGCCGTGACGGCCGTGATGGCCGCGACGGTGCACCCGGGAGCTCCGGGAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGCCTGTGTCCCGGGCAGCCCGGCCTCCCAGGCACCACCACCACCACCAGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGCCCTGCTTCTGGGTCTGGCATCAGGCTCTCCTCTCGGACGACAACAAGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTCAGCGAGGGCAGGGCTGCCTGGTTGGGGTAGGAGTGGGAGCAGGGCCAGCAGGAGG
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18.7%;
              10.9%;
                                                                                                                                                                                                                                                                                                                                   US/09188930A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .score 257.8; DB 4; Pred. No. 1.8e-43; 0; Mismatches 134;
 0
              Score 149.6; DB 3
Pred. No. 8.6e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ç
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                    566
                                                                                                                                                                                                                    Skin
                            ω
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 601;
 Indels
                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                             393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8;
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  125
'n
```

```
; NAME/KEY:
; LOCATION:
US-08-463-911-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 11
US-08-463-911-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/08463911 Patent No. 5869330
                                                                                                                        TELEFAX: (617) 861-9540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1276 base pairs
                                                                                                                                                                                     APPLICATION NUMBER: US/08/463
EILING DATE:
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: WHI9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                               MOLECULE TYPE: FEATURE:
                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hamilton, Brook,
STREET: Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Lodish, TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
CITY: I
STATE:
                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                            STRANDEDNESS:
TOPOLOGY: li
                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 391 AA 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93
                                                                                                                                                                                                                                                                                                                                                                                                                             02173
                                                                                                           nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lexington
Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGCCTGTGTCCCGGGCAGCCCGGCCTCCCAGGCACACCAGGCCACGCCAGGCCAGGCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGCCCTGCTGCTTCTGGGTCTGGCATCAGGCTCTCCTCCTCTGGACGACAACAAGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGACTACAAGAGAGGATCCTGGCGTCTGGGCCTCCTGGGTCATCACCATGAGGCCACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCTGAGGAAGCCATTCAAAGCGAGCAGCTGGGAGAGCTGGGGAGGCCGGGAAGGGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGACGCCAGGGCAGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCACCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCGTCCTGCTGCTCCTGGCCGGCCGGCCGGCTCGCCCCCACTGGACGACAACAACATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGAGGGTCCGGAGCGAGCGCCCCGAAGGAGGCCATCGGGAGCCGGGAGGGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TG-----CGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTCAGCGAGGGCCAGGGCCTGCCTGGGTTGGGGTAGGAGTGGGAGCAGGGCCAGCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scherer,
                CDS
46..786
                                                                                linear
                                                              DNA (genomic)
                                                                                             single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Harvey F.

A NOVEL SERUM PROTEIN PRODUCED
EXCLUSIVELY IN ADIPOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Philipp E.
                                                                                                                                                                                                                                                                                                                  US/08/463,911
                                                                                                                                                                                                                         WHI95-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Smith & Reynolds,
                                                                                                                                                                                                                                                                                                                                                Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92
```

```
RESULT 12
US-08-463-911-6
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 316
                                                                                                                                                                                                                                                Sequence 6, Apparation: 5869330 GENERAL INFORMATION:
                          COMPUTER READABLE FORM:
MEDITM TYPE: Floppy disk
COMPUTER: HM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                     NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                 APPLICANT: Scherer, Philipp E.
APPLICANT: Lodish, Harvey F.
TITLE OF INVENTION: A NOVEL SERUM PROTEIN PRODUCED
TITLE OF INVENTION: EXCLUSIVELY IN ADIPOCYTES
                                                                                                STATE: M
                                                                                                                            STREET:
CITY: I
                 SOFTWARE:
                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                      918
                                                                                                                                                                                                                                                                                                                                                                                                                  707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       333
                                                                                                                                                                                                                                                                                                                                                             767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             170
  ARE: PatentIn Release #1.0, APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 51.5
16; Conservative
                                                                                      02173
                                                                                                                              Lexington
                                                                                                                                                                                                                                                                                                                                                                                                                                 Massachusetts
                                                                                                                                                                                                                                                                                     Application US/08463911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTG----GGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCCTCCGCCGTCTG-----ACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCGAGGGGACCCCGGGCCGAGGAGAGGCGGCCGACCGGGGCCCACCGGGCCTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGATGGCAGGCATCCCAGGACATCCTGGCCACAATGGCACACCAGGCCGTGATGGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACGCCGGGCCACCATGGCAGGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGCG
                                                                                                                                                                                                                                                                                                                                                                                     TGGTGTACTCCGA 930
                                                                                                                                                                                                                                                                                                                                                                                                                ATGGGGACCACAATGGACTCTATGCAGATAACGTCAACGACTCTACATTTACTGGCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGCTCTGTGCTCCATCTGGAGGTGGGAGACCAAGTCTGGCTCCAGGTGTATGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAAGGCCGTTCTCTTCACCTACGACCAGTATCAGGAAAAG---AATGTGGACCAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTTCTCTTACCACATCACGGTGTACATGAAAGATGTGAAGGTGAGCCTCTTCAAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAGACCCGCGTCACTGTTCCCAATGTACCCATTCGCTTTACTAAGATCTTCTACAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGGAAAGGAGACCTGGAGAAGCCGCTTATATGTATCGCTCAGCGTTCAGTGTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAG----CGCCAAGCGCTCCGAGAGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACAGGAGATGTTGGAATGACAGGAGCTGAAGGGCCACGGGGCTTCCCCGGAACCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGGCACTCCTGGAGAGAGGGGGGAGAAAGGAGATGCAGGTCTTCTTGGTCCTAAGGGTG
                                                                                                                                           Two Militia
                                                                                                  USA
                                                                                                                                                          Hamilton,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6.6%;
                                                                                                                                          Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 90.6; DB 2;
Pred. No. 7.3e-10;
0; Mismatches 279;
                                                                                                                                                          Smith
              Version
                                                                                                                                                        & Reynolds,
                #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 568
                                                                                                                                                                                                                                                                                                                                                                                                                                         917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      392
RESULT 13
US-09-140-804-9
                                                                               S
                                                                                                              밁
                                                                                                                                       Š
                                                                                                                                                                     밁
                                                                                                                                                                                              Š
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-463-911-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (617) 861-9540 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 1313 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION: NAME: Granahan, Patricia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
hes 316; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 32,227 REFERENCE/DOCKET NUMBER: WH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                  918
                                                                                                                                                                                                                                                                                                                                                                                                                           561
                                                       785
                                                                                                               725
                                                                                                                                          960
                                                                                                                                                                     665
                                                                                                                                                                                                 801
                                                                                                                                                                                                                             809
                                                                                                                                                                                                                                                        741
                                                                                                                                                                                                                                                                                     548
                                                                                                                                                                                                                                                                                                                681
                                                                                                                                                                                                                                                                                                                                           488
                                                                                                                                                                                                                                                                                                                                                                      621
                                                                                                                                                                                                                                                                                                                                                                                                  431
                                                                                                                                                                                                                                                                                                                                                                                                                                                        374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           194 CGGGCATCCCAGGGCATCCGGGCCATAATGGGGCCCCAGGCCGTGATGGCAGAGATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCC
                                                                                                                                                                                              TTCTCTACCATGACACCAACTGATCACCACT 815
                                                                                                                              CCGGCTCTGTGCTCCTGCATCTGGAGGTGGGCGACCAAGTCTGGCTCCAGGTGTATGGGG
                                                                                                                                                                                                                                               ACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCG 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCTGGTGAGAAGGGTGAGAAAGGAGATCCAGGTCTTATTGGTCCTAAGGGAGACATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGACGGCGCGCGCGCGCGCGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGG
                                                                                  TGGTGTACTCCGACTGGCACAGCTCCCCAGT
                                                                                                               AAGGAGCGTAATGGACTCTATGCTGATAATGACAATGACTCCACCTTCACAGGCTTTC
                                                                                                                                                                                                                             ACAAGGCTATGCTCTTCACCTATGATCAGTACCAGGAAAAT - - - AATGTGGACCAGGCCT
                                                                                                                                                                                                                                                                                    ACTITGCCTACCACATCACAGTCTATATGAAGGATGTGAAGGTCAGCCTCTTCAAGAAGG
                                                                                                                                                                                                                                                                                                                                           AGCAAAACCACTATGATGGCTCCACTGGTAAATTCCACTGCAACATTCCTGGGCTGTACT
                                                                                                                                                                                                                                                                                                                                                                      AGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACT 680
                                                                                                                                                                                                                                                                                                                                                                                                  AGACTTACGTTACTATCC----CCAACATGCCCATTCGCTTTACCAAGATCTTCTACAATC
                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGAACG 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGGAGAACCTGGAGAAGGTGCCTATGTATACCGCTCAGCATTCAGTGT----GGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGAAACCGGAGTACCCGGGGCTGAAGGTCCCCGAGGCTTTCCGGGAATCCAAGGCAGGA 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (617)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patricia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/08/463,911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WHI95-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 82.2; DB 2; Pred. No. 3.6e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -05
                                                                                  948
```

Length 1313; Indels

12;

Gaps

440 253

313

917 724

784

664 800 607 547

```
RESULT 14
US-09-118-408-23
; Sequence 23, Application
; Patent No. 626554
; GENERAL INFORMATION:
                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: DNA; ORGANISM: Homo sapiens US-09-140-804-9
                                                                                                                                                        멍
                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     δÕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 9, Application Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Humes, Jacqueline M.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/140,804 CURRENT FILING DATE: 1998-08-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                                                                                                                    918
                                                                                                                                                                 679
                                                                                                                                                                                                                            619
                                                                                                                                                                                                                                                        801
                                                                                                                                                                                                                                                                                      562
                                                                                                                                                                                                                                                                                                                                                502
                                                                                                                                                                                                                                                                                                                                                                                                           442
                                                                                                        739
                                                                                                                                                                                                                                                                                                                  741
                                                                                                                                                                                                                                                                                                                                                                             681
                                                                                                                                                                                                                                                                                                                                                                                                                                        621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321 CCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGGCCAGGGCTTGCCGGGCCGCGATGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       316;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGACGCCGCGGACGCCCCGGGGGCTCCCGGGAGAGAAAGGCCGAGGCGGGAGGCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGCATCCCAGGGCATCCGGGCCATAATGGGGCCCAGGCCGTGATGGCAGAGATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTGCCGGGACCTCGAGGGGACCCCGGGGCCGAGGAGGAGGCGGGACCCGGGGGCCCA
                                                                                                      TTCTCTACCATGACACCAACTGATCACCACT 769
                                                                                                                                  TGGTGTACTCCGACTGGCACAGCTCCCCAGT 948
                                                                                                                                                                AAGGAGAGCGTAATGGACTCTATGCTGATAATGACAATGACTCCACCTTCACAGGCTTTC
                                                                                                                                                                                                                           CCGGCTCTGTGCTCCTGCATCTGGAGGTGGGCGACCAAGTCTGGCTCCAGGTGTATGGGG
                                                                                                                                                                                                                                                       ACAAGGCTATGCTCTTCACCTATGATCAGTACCAGGAAAAT---AATGTGGACCAGGCCT
                                                                                                                                                                                                                                                                                                                ACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGGAGAACCTGGAGAAGGTGCCTATGTATACCGCTCAGCATTCAGTGT----GGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGAAACCGGAGTACCCGGGGCTGAAGGTCCCCGAGGCTTTCCGGGAATCCAAGGCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCTGGTGAGAAGGGTGAGAAAGGAGATCCAGGTCTTATTGGTCCTAAGGGAGACATCG
                                                                                                                                                                                            ACTTTGCCTACCACATCACAGTCTATATGAAGGATGTGAAGGTCAGCCTCTTCAAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                         AGCAAAACCACTATGATGGCTCCACTGGTAAATTCCACTGCAACATTCCTGGGCTGTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGACTTACGTTACTATCC----CCAACATGCCCATTCGCTTTACCAAGATCTTCTACAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/09140804
                               US/09118408A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 82.2; DB 4;
Pred. No. 4.4e-08;
0; Mismatches 303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOMOLOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 4517;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                738
                                                                                                                                                                                            917
                                                                                                                                                                                                                                                       859
                                                                                                                                                                                                                                                                                                                800
                                                                                                                                                                                                                                                                                                                                                                          740
                                                                                                                                                                                                                                                                                                                                                                                                                                     680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            207
                                                                                                                                                                                                                           678
                                                                                                                                                                                                                                                                                    618
                                                                                                                                                                                                                                                                                                                                              561
                                                                                                                                                                                                                                                                                                                                                                                                         501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              440
```

```
밁
                                                                                                    õ
                                                                                                                                              밁
                                                                                                                                                                         δ
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-118-408-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/118,408A CURRENT FILING DATE: 1998-07-17
EARLIER APPLICATION NUMBER: 60/053,154
EARLIER FILING DATE: 1997-07-18
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 23
LENGTH: 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Sheppard, Paul O. TITLE OF INVENTION: ADIPOCYTETLE REFERENCE: 97-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: variation LOCATION: (1)...(843)
OTHER INFORMATION: Each N is independently any nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                   491
                                                                                                                                                                                                                                                                                                                                                                                                                                           431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            131 CNWSNCCNCCNGAYCAYGCNGARMGNGCNGARGARCARCAYGARAARTAYMGNCCNWSNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               233 CCACTCCTCGTCCTGCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAAC
TNGAYACNTAYATHACNTTYWSNGGNTAYYTNGTNAA
                                  TCAAGACAGACACCTTCTCCGGATTTCTGGTGTA
                                                                    AYCARGTNTGGGTNMGNYTNTAYAARGGNGARMGNGARAAYGCNATHTTYWSNGARGARY
                                                                                                          CTGAGGACCAAGTGTGGGTGCAGGTGGGTGAGTACATTGGCATCTATGCCAGCA
                                                                                                                                              ARGT NGG NGAYMG NWS NATHAT GCARWS NCARWS NYT NATGYT NGARYT NMG NGARCARG
                                                                                                                                                                              ARAARGARACNTAYYTNCAYATHATGAARAAYGARGARGARGTNGTNATHYTNTTYGCNC
                                                                                                                                                                                                                                                       ARTTYTAYTGYTAYGTNCCNGGNYTNTAYTTYTTYWSNYTNAAYGTNCAYACNTGGAAYC
                                                                                                                                                                                                                                                                                                                           AGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGC---CACCGTCTACC
                                                                                                                                                                                                                                                                                                                                                                   CNGTNATHTTYGAYACNGARTTYGTNAAYYTNTAYGAYCAYTTYAAYATGTTYACNGGNA
                                                                                                                                                                                                                                                                                                                                                                                                   CCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                         AYTAYGCNGCNTTYWSNGTNGGNMGNAARAARCCNATGCAYWSNAAYCAYTAYTAYCARA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AYACNGGNCCNAARGGNCARAARGGNWSNATGGGNGCNCCNGGNGARMGNTGYAARWSNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCGAGGAGAGGCGGGACCCGCGGGGGCCTCCCGCGGGGAGTGCTCGGTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GNGGNGAYMGNGGNYTNCARGGNAARTAYGGNAARACNGGNWSNGCNGGNGCNMGNGGNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGGAGAGAAAGGCCAGGGCGGGAGCCGGGACCTCGAGGGGACCCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AYCCNGCNACNGCNGTNCCNCARATHAAYATHACNATHYTNAARGGNGARAARGGNGAYM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCCAGGGCTTGCCGGGGCCGCGA--TGGCCGCGACGGCCGCGCGCGCGCGCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ARGAYCARGGNYTNCCNGCNWSNMGNTGYYTNMGNTGYTGYGAYCCNGGNACNWSNATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Degenerate nucleotide sequence encoding zsig37 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADIPOCYTE-SPECIFIC PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 77.4; DB 4; Pred. No. 3e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HOMOLOGS
827
                                  924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                       767
                                                                                                                                                                                                                                                                                                                                                                                                                                       490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430
                                                                                                                                                                              827
                                                                                                                                                                                                                      670
                                                                                                                                                                                                                                                                                           610
                                                                                                                                                                                                                                                                                                                             707
                                                                                                                                                                                                                                                                                                                                                                   550
                                                                                                                                                                                                                                                                                                                                                                                                     650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ŋ
```

```
; LENGTH: 843
; TYPE: DNA
ORGANISM: Artificial Sequence
; PEATURE:
OTHER INFORMATION: Degenerate nucleotide sequence encoding
OTHER INFORMATION: polypeptide
; FEATURE:
; NAME/KEY: variation
; LOCATION: (1)...(843)
; OTHER INFORMATION: Each N is independently any nucleotide.
US-09-506-855-23
   븅
                                           Š
                                                                                   밁
                                                                                                                 δ
                                                                                                                                                             밁
                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-506-855-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 23, Application US/09506855
Patent No. 6448221
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: 99-12
CURRENT APPLICATION NUMBER: US/09/506,855
CURRENT FILING DATE: 2000-02-17
NUMBER OF SEQ ID NOS: 50
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Sheppard, Paul O.
APPLICANT: Lasser, Gerald W.
APPLICANT: Bishop, Paul D.
TITLE OF INVENTION: INHIBITORS FOR USE IN HEMOSTASIS AND
TITLE OF INVENTION: IMMUNE FUNCTION
671 ARGINGGNGAYMGNWSNATHAIGCARWSNCARWSNYINAIGYINGARYINMCNGARCARG 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match 5.6%; Score 77.4; DB 4; Local Similarity 30.0%; Pred. No. 3e-07;
                                                                                   611
                                                                                                                                                               551
                                                                                                                                                                                                     651
                                                                                                                                                                                                                                                                               591
                                                                                                                                                                                                                                                                                                                   431
                                                                                                                                                                                                                                                                                                                                                           531
                                                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                       708
                                                                                                                                                                                                                                           491
                                                                                                                                                                                                                                                                                                                                                                                           371 AYACNGGNCCNAARGGNCARAARGGNWSNATGGGNGCNCCNGGNGARMGNTGYAARWSNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 251 AYCCNGCNACNGCNGTNCCNCARATHAAYATHACNATHYTNAARGGNGARAARGGNGAYM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                293 AAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    131 CNWSNCCNCCNGAYCAYGCNGARMGNGCNGARGARCARCAYGARAARTAYMGNCCNWSNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          233 CCACTCCTCCTGCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                209; Conservative
                                                                                                                                                                                                                                                               CCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACACTTACGACGCCGTCACCGGCA 650
                                                                                                       CNGTNATHTTYGAYACNGARTTYGTNAAYYTNTAYGAYCAYTTYAAYATGTTYACNGGNA
                                                                                                                                                                                                                                                                                                                                                       CGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCAC 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GNGGNGAYMGNGGNYTNCARGGNAARTAYGGNAARACNGGNWSNGCNGGNGCNWGNGGNC
                                                                                                                                                                                                 AGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGC---CACCGTCTACC
                                                                                                                                                                                                                                                                                                                   AYTAYGCNGCNTTYWSNGTNGGNMGNAARAARCCNATGCAYWSNAAYCAYTAYTAYCARA
                                                                                                                                                                                                                                                                                                                                                                                                                               CGCGAGGAGGCGGGACCCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACCTCGAGGGGACCCCGGGC
                                           ARTTYTAYTGYTAYGUNCCNGGNYTNTAYTTYTTYMSNYTNAAYGTNCAYACNTGGAAYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ARGAYCARGGNYTNCCNGCNWSNMGNTGYYTNMGNTGYTGYGAYCCNGGNACNWSNATGT
                                                                                 ARAARGARACNTAYYTNCAYATHATGAARAAYGARGARGARGTNGTNATHYTNTTYGCNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCCAGGGCTTGCCGGGGCCGCGA--TGGCCGCGACGGCCGCGACGGCGCGCGCGCGCTC 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99; Mismatches 384; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleotide sequence encoding zsig37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 843;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5.
                                                                                                                                                                                                                                                                                                                                                                                           430
                                                                                                                                                                                                                                                                                                                                                                                                                                 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310
                                                                                                                                                           610
                                                                                                                                                                                                                                       550
                                                                                                                                                                                                                                                                                                                 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            292
```

Search completed: June 21, 2003, 11:27:09 Job time: 99 secs

Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence

361, 361,

Sequence Sequence Sequence Sequence Sequence Sequence Sequence

Sequence

361, 361,

Sequence Sequence Sequence

Sequence Sequence Sequence Sequence

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Word size
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      on:
                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                  Score
                                    seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OLIGO_NUC Gapop 60.0 ,
   100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
                                                                                                                                                                                                                                 Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1042519 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-944-944-41
1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     June
                                                                                                                                                                                                                                             Query
                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Published_Applications_NA: *
                                                                                                                                                                                                                                                                                                                                /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq:*
2: /cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq:*
3: /cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gactagttctcttggagtct...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21, 2003, 13:56:00 ; Search time 252 Seconds (without alignments) 8018.441 Million cell updates/sec
                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000000000
             GenCore version 5.1.6 (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          733713590
                          0000000000000
US-09-944-413-41
US-09-944-803-41
US-09-944-896-41
US-09-944-944-41
US-09-944-929-41
US-09-944-929-41
US-10-123-904-361
US-10-123-904-361
US-10-175-746-361
US-10-176-918-361
                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ....aaaaaaaaaaaaaaaaaa 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2085038
                                                                                                                                                                                                                               Description
                                             Sequence
Sequence
                                                                   Sequence
Sequence
                                                                                          Sequence
Sequence
                                                                                                                                                             Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                         Sequence
  Sequence
             Sequence
                      Sequence
                                   Sequence
                                                                                                                  Sequence
                                                                                                                           Sequence
                                                                                                                                        Sequence
                                                                                                                                                  Sequence
                                                          TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME

FILE REFERENCE: P2548P1C1

CURRENT APPLICATION NUMBER: US/09/944,413

CURRENT FILING DATE: 2001-09-26

PRIOR FILING DATE: 2001-09-26

PRIOR FILING DATE: 00/1-05-25

PRIOR APPLICATION NUMBER: 60/67,411

PRIOR APPLICATION NUMBER: 60/69,411

PRIOR APPLICATION NUMBER: 60/69,34

PRIOR FILING DATE: December 1, 1997

PRIOR APPLICATION NUMBER: 60/69335

PRIOR FILING DATE: December 11, 1997

PRIOR APPLICATION NUMBER: 60/069,278

PRIOR APPLICATION NUMBER: 60/069,425

PRIOR FILING DATE: December 12, 1997

PRIOR APPLICATION NUMBER: 60/069,696

PRIOR APPLICATION NUMBER: 60/069,696
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
US-09-944-413-41
                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                      PRIOR
                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
             PRIOR
                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: Decembe APPLICATION NUMBER: FILING DATE: Decembe
                     APPLICATION NUMBER: 60 FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  41,
                                                                                                                                                                                                                                                                                                                                                                                                                                        1, Application US/09944413
US20020156004A1
                                                                                                                                                                                                                                                                                     Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                    Napier, Mary
Roy, Margaret
Tumas, Daniel
                                                                                                                                                                                                                                         Wood, William
                                                                                                                                                                                                                                                                                                                                                                    Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                        Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                    Godowski, Paul
                                                                                                                                                                                                                                                                                                                                              Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                          Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                            Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                       Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . .
                                                                                                                                                                                                                                                                                                                                                                                                                  Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60/069,696
ber 16, 1997
60/069,694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-123-262-361
US-10-121-050-361
US-10-141-755-361
US-10-141-755-361
US-10-123-108-361
US-10-123-236-361
US-10-123-261-361
US-10-123-261-361
US-10-123-261-361
US-10-121-045-361
US-10-121-045-361
US-10-124-812-361
US-10-124-812-361
US-10-124-812-361
US-10-124-812-361
US-10-124-812-361
US-10-124-82-361
US-10-124-82-361
US-10-124-82-361
US-10-124-82-361
US-10-124-836-361
US-10-121-047-361
US-10-123-903-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALIGNMENTS
```

```
; LENGTH: 1377
; TYPE: DNA
; ORGANISM: HOMO :
US-09-944-413-41
              Ş
                                          Query Match 100
Best Local Similarity 100
Matches 1377; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          IOR FILING DATE: December 16, 1981
IOR APPLICATION NUMBER: 09/218,517
IOR FILING DATE: December 22, 1998
IOR APPLICATION NUMBER: 09/254,311
IOR FILING DATE: March 3, 1999
IOR APPLICATION NUMBER: PCT/US99/1252
IOR FILING DATE: March 3, 1999
IOR APPLICATION NUMBER: PCT/US99/2250
IOR FILING DATE: September 15, 1999
IOR APPLICATION NUMBER: PCT/US99/28409
IOR FILING DATE: NO. US20020156004Alember 30
IOR FILING DATE: NO. US20020156004Alember 30
IOR FILING DATE: NO. US20020156004Alember 30
IOR APPLICATION NUMBER: PCT/US99/28301
IOR FILING DATE: December 1, 1999
IOR APPLICATION NUMBER: PCT/US9/28309
IOR APPLICATION NUMBER: PCT/US9/28301
                                                                                                                                                                                                                                         OR FILING DATE: March 2, 2000
OR APPLICATION NUMBER: PCT/US00/08439
OR FILING DATE: MArch 30, 2000
OR APPLICATION NUMBER: PCT/US00/14042
OR FILING DATE: May 22, 2000
OR APPLICATION NUMBER: PCT/US00/20710
OR APPLICATION NUMBER: PCT/US00/20710
OR FILING DATE: July 28, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DR APPLICATION NUMBER: 60/074,092
BR FILLING DATE: February 9, 1998
BR APPLICATION NUMBER: 60/075,945
DR FILLING DATE: Pebruary 25, 1998
DR APPLICATION NUMBER: 60/112,850
BR FILLING DATE: December 16,1998
DR APPLICATION NUMBER: 60/113,296
DR FILLING DATE: December 22, 1998
BR APPLICATION NUMBER: 60/113,296
BR FILLING DATE: December 22, 1998
BR APPLICATION NUMBER: 60/146,222
BR FILLING DATE: July 28, 1999

                                                                                                                                                          ŏ
                                                                                                                                                                                    APPLICATION FILING DATE:
                                                                                                                                                                                                                APPLICATION : FILING DATE:
                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: PCT/US00/03565
FILING DATE: February 11, 2000
APPLICATION NUMBER: PCT/US00/04414
FILING DATE: February 22, 2000
                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US00/05841
FILING DATE: March 2, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: September 16, 1998
APPLICATION NUMBER: PCT/US98/25108
FILING DATE: December 1, 1998
APPLICATION NUMBER: 09/216,021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: December 22, 1998
APPLICATION NUMBER: 60/146,222
FILING DATE: July 28, 1999
APPLICATION NUMBER: PCT/US98/19330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: February APPLICATION NUMBER: 60, FILING DATE: February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: January APPLICATION NUMBER: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/070,440 FILING DATE: Tenner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60,
                                                                                                                                                        F SEQ
GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                   NUMBER:
                                                                                                                                                                                                                             NUMBER:
                                                                                                                                                                                                                                                                                                                                                     NUMBER: PCT,
: February 2
                                                                                                                                                                                                                July 28, 2000
NUMBER: PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER:
                                                       .0%;
                                                                                                                                                                                                   PCT/US01/06520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60/069,702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /074,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /068,017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /069
                                          0
                                          Score 1377;
Pred. No. 0;
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30,
                                                                      DB
                                          0
                                                                   9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999
                                          Indels
                                         0;
                                         Gaps
              60
                                          0
                        Qy
                                                      밁
                                                                          δõ
                                                                                                            밁
                                                                                                                                     δÃ
                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                           Ş,
                                                                                                                                                                    В
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                    Q . B
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맖,
  1081
                                                       1021
                           1081
                                                                                1021
                                                                                                              961
                                                                                                                                        961
                                                                                                                                                                     901
                                                                                                                                                                                                                            841
                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                    GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                    CGACCGCGTGCTGGAACCAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
CCCACTGCAAAGTGAGCTCATGCTCTCACCTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                         CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                            GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                            GCCCAAGCCAGCCTCGCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCGGGACCCGCGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCGAGGCGGGAGGCCGGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                1080
                                                                                                              1020
                                                       1080
                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                             960
                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
```

ρ

В

1141 1201

Ş 밁 Ş 밁 Qy

US-09-944-403-41

```
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR PRIOR APPLICATION NUMBER: 60/067,411
PRIOR FILING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR PILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,694
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,694
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,694
PRIOR PILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,702
PRIOR APPLICATION NUMBER: 60/069,702
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,702
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,702
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,702
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 41, Application US/09944403 Patent No. US20020165143A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
CURRENT APPLICATION NUMBER: US/09/944,403
CURRENT FILING DATE: 2001-09-26
                    FILING DATE: January 5, 199
APPLICATION NUMBER: 60/074,
FILING DATE: February 9, 19
                                                                                FILING DATE: December 17, 1997
APPLICATION NUMBER: 60/068,017
FILING DATE: December 18, 1997
APPLICATION NUMBER: 60/070,440
                                                                                                                                                                   APPLICATION NUMBER: 60/069,870
FILING DATE: December 17, 1997
APPLICATION NUMBER: 60/069,873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gerritsen, Mary
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Roy, Margaret
Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Godowski, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ferrara, Napoleone Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEIC
                                                                                밁
                                                                                                                          Š
                                                                                                                                                                        밁
                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-944-403-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 41
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: PCT/US01/06520 PRIOR FILING DATE: February 28, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RILING DATE: September 15, 1999
APPLICATION NUMBER: PCT/US99/28409
RILING DATE: NO. US20020165143A1ember 30, 1999
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020165143A1ember 30, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RILING DATE: December 22, 1998
APPLICATION NUMBER: 09/254,311
FILING DATE: March 3, 199
APPLICATION NUMBER: PCT/US99/12252
FILING DATE: June 22, 199
APPLICATION NUMBER: PCT/US99/21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/113,296
FILING DATE: December 22, 1998
APPLICATION NUMBER: 60/146,222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US99/30095
FILING DATE: December 16, 1999
APPLICATION NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US99/28301 FILING DATE: December1, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/218,517 FILING DATE: December 22, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 6 FILING DATE: July 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/112,850 FILING DATE: December 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
FILING DATE: July 28, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US00/08439 FILING DATE: March 30, 2000 APPLICATION NUMBER: PCT/US00/14042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/216,021 FILING DATE: December 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: September 16, 1998
APPLICATION NUMBER: PCT/US98/25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: Februar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US00/05841
FILING DATE: March 2, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US98/19330
                                       181
                                                                                   121
                                                                                                                            121
                                                                                                                                                                          61
                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                   TGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGAGAAGCGCGGGGGCTGGAGCACCA 120
                                                                                                                                                                                                                                                           GGGACTGCGAGAGGACCCCGGCGTCCCGGGTGCCAGCGCTATGAGGCCACTCCT
                                                                              GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     February
NOS: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             February 9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        December
                                                                                                                                                                                                                                                                                                                                            100.0%; 50
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60/075,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999
                                                                                                                                                                                                                                                                                                                                                 Score 1377;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                               DB 9;
                                                                                                                                                                                                                                                                                                                                                   0:
                                                                                                                                                                                                                                                                                                                                                 .Indels
                                                                                                                                                                                                                                                                                                                                                                                            Length 1377;
                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                   Gaps
```

240 180

180

60

240

APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:

APPLICANT:

APPLICANT:

APPLICANT: APPLICANT:

1377

```
1201
                                                                                       1081
                                                                                                    1081
                                                                                                                                 1021
                                                                                                                                                961
                                                                                                                                                             961
                                                                                                                                                                           901
                                                                                                                                                                                          901
                                                                                                                                                                                                        841
                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
      GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA 1200
                                                                                                                 GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                                                             CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                          GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                              GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                       GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTCGGGGGGGTG
                                                                                                                                                                                                                                                                                          CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                       CTTCAGCGCCAAGCGCTCCĠAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                               CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                      GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                      1260
                            1260
                                                                                     1140
                                                                                                   1140
                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                           960
                                                                                                                                                                                        960
                                                                                                                                                                                                        900
                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

õ

밁 õ ₽ Š 밁 Š 뫄 οy 밁 Ş В õ В δ 밁 Ω 밁 ρy ₽ δÃ 밁 δÃ 밁 δÃ 밁 δã 밁 δ 밁 δ B õ

В Ş В

```
CURRENT APPLICATION NUMBER: US/09/944,896
CURRENT APPLICATION NUMBER: US/09/944,896
CURRENT APPLICATION NUMBER: 09/866,028
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,694
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,694
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,702
PRIOR FILING DATE: December 17, 1997
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR FILING DATE: December 17, 1997
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR FILING DATE: December 17, 1997
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR FILING DATE: December 18, 1997
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR FILING DATE: December 18, 1997
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR FILING DATE: December 17, 1997
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR APPLICATION NUMBER: 60/069,873
PRIOR FILING DATE: December 18, 1997
PRIOR APPLICATION NUMBER: 60/069,873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Baker, Ke
APPLICANT: Botstein
APPLICANT: Eaton, Da
APPLICANT: Ferrara,
APPLICANT: Filvarof
APPLICANT: Gerritse
APPLICANT: Goddard,
APPLICANT: Goddwski
APPLICANT: Godowski
APPLICANT: Grimaldi
APPLICANT: Grimaldi
APPLICANT: Hillan, K
APPLICANT: Napier, M
APPLICANT: Wood, Wil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
US-09-944-896-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4. Patent No.
      PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: P2548P1C1
OR APPLICATION NUMBER: 60/146,222
OR FILING DATE: July 28, 1999
OR APPLICATION NUMBER: PCT/US98/19330
OR FILING DATE: September 16, 1998
OR APPLICATION NUMBER: PCT/US98/25108
OR APPLICATION NUMBER: D7/US98/25108
OR FILING DATE: December 1, 1998
OR FILING DATE: December 16, 1998
                                                                                                                                                                                  OR FILING DATE: February 9, 1998
OR APPLICATION NUMBER: 60/074,092
OR FILING DATE: February 9, 1998
OR APPLICATION NUMBER: 60/075,945
OR FILING DATE: February 25, 1998
OR APPLICATION NUMBER: 60/112,850
OR FILING DATE: December 16, 1998
OR APPLICATION NUMBER: 60/113,296
OR APPLICATION NUMBER: 60/113,296
OR FILING DATE: December 22, 1998
OR APPLICATION NUMBER: 60/146,222
OR FILING DATE: July 28, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1, Application U
US20020168715A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumas, Daniel
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Godowski, Paul
Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Filvaroff, Ellen
Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Napier, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Roy,Margaret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/09944896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1377
```

540

```
Вb
                                                                                                                                                     δ
                                                                                                                                                                               g
                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                  Ωy
                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                    Q
                                     밁
                                                     δÕ
                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID
SEQ ID NO 41
LENGTH: 1377
TYPE: DNA
ORGANISM: Homo 9
JS-09-944-896-41
                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OR APPLICATION NUMBER: PCT/US99/30095
OR FILING DATE: December 16, 1999
OR APPLICATION NUMBER: PCT/US00/03565
OR FILING DATE: February 11, 2000
OR APPLICATION NUMBER: PCT/US00/04414
OR FILING DATE: February 22, 2000
OR APPLICATION NUMBER: PCT/US00/05841
OR APPLICATION NUMBER: PCT/US00/08439
OR APPLICATION NUMBER: PCT/US00/08439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OR FILING DATE: March 30, 2000

RAPPLICATION NUMBER: PCT/US00/14042

DR FILING DATE: May 22, 2000

OR APPLICATION NUMBER: PCT/US00/20710

OR FILING DATE: July 28, 2000

OR APPLICATION NUMBER: PCT/US00/32678

OR FILING DATE: December 1, 2000

OR FILING DATE: December 1, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R APPLICATION NUMBER: C
R FILING DATE: December
R APPLICATION NUMBER: C
R FILING DATE: March 3;
R APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US01/06520
FILING DATE: February 28, 2001
R OF SEQ ID NOS: 120
NO 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/US99/28409
FILING DATE: No. US20020168715Alember
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020168715Alember
APPLICATION NUMBER: PCT/US99/28301
FILING DATE: December1, 1999
FILING DATE: December1, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: June 22, 1999
APPLICATION NUMBER: PCT/US99/21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                         361
                                     361
                                                                                  301
                                                                                                          301
                                                                                                                                  241
                                                                                                                                                        241
                                                                                                                                                                                181
                                                                                                                                                                                                         181
                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                        121
               421
                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                             CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                   CAGCCTCTGCCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                               GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                            TGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGAGAAAGCGCGGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                            GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCCAACCAGGAC
                                                                                  CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
               AGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER: 09/218,517
: December 22, 1998
: NUMBER: 09/254,311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            September 15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         March 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCT/US99/12252
2, 1999
                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                       Score 1377;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30,
                                                                                                                                                                                                                                                                                                                                                                                                     DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999
                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1999
                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                            Gaps
               480
                                                          420
                                                                                                                                                                                240
                                                                                                                                                                                                       240
                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                              60
                                                                                  360
                                                                                                         360
                                                                                                                               300
                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                    60
; Sequence 41, Application US,
Patent No. US20020173463A1
; GENERAL INFORMATION:
APPLICANT: Baker, Kevin
APPLICANT: Botstein, David
APPLICANT: Eaton, Dan
APPLICANT: Filvaroff, Eller
                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                            RESULT 4
US-09-944-944-41
                                                                                                                                                                 Š
                                                                                                                                                                                          밁
                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                             1321
                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                        GCACTCTCCGTCCTGCTGCCAGGAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCGGGACCCGCGGGCCCACCGGGCCCTGCCGGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                     GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTCGGGGGGTG
                                                                                                                                                                     GCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCCAA
                                                                                                                                                                                                                                                                                                                                                                                       GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCGAGGGCGGGAGCTGCCGGGACCTCGAGGGGACCCCGGGCCGAGGAGA
 Ferrara, Napoleone Filvaroff, Ellen
                       Botstein,David
Eaton,Dan
                                                                                  US/09944944
```

1320

1200 1260 1260

1320

1200

960 960 1020 1020 1080 1080 1140 840

780

900

```
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/944,944
CURRENT FILING DATE: 2001-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PARTICING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,694
RIOR FILING DATE: December 16, 1997
RIOR APPLICATION NUMBER: 60/069,702
TOR APPLICATION NUMBER: 60/069,870
TOR FILING DATE: December 17, 1007
OR APPLICATION NUMBER: 7, 1007
OR APPLICATION NUMBER: 17, 1007
OR APPLICATION NUMBER: 1007
OR APPLICATION
                                                                 OR FILING DATE: December 22, 1998
OR APPLICATION NUMBER: 09/254,311
OR APPLICATION NUMBER: 09/254,311
OR FILING DATE: March 3, 1999/12252
OR APPLICATION NUMBER: PCT/US99/12252
OR FILING DATE: June 22, 1999
OR APPLICATION NUMBER: PCT/US99/21090
OR APPLICATION NUMBER: PCT/US99/28409
OR FILING DATE: No. US20020173463Alember 30
OR FILING DATE: No. US20020173463Alember 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OR APPLICATION NUMBER: 60/074,086
R FILING DATE: February 9, 1998
OR APPLICATION NUMBER: 60/074,092
OR APPLICATION NUMBER: 60/075,945
OR APPLICATION NUMBER: 60/075,945
OR APPLICATION NUMBER: 60/112,850
OR FILING DATE: December 16, 1998
OR APPLICATION NUMBER: 60/113,296
OR APPLICATION NUMBER: 60/113,296
OR APPLICATION NUMBER: 60/113,296
OR APPLICATION NUMBER: 60/113,296
                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: July ...
APPLICATION NUMBER: PCT
APPLICATION SEPTEMBER
DATE: September
                                                                                                                                                                                                                                                                                                                                                                                        APPLICATE: December: 60/140,--
RAPPLICATION NUMBER: 60/140,--
APPLICATION NUMBER: 60/140,--
TWG DATE: JULY 28, 1999
THE POT NUMBER: PCT/US98/19330
THE POT NUMBER: PCT/US98/19330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: December 197
APPLICATION NUMBER: 60/069,873
APPLICATION NUMBER: 60/068,017
FILING DATE: December 18
    FILING DATE: NO. US20020173463A1ember APPLICATION NUMBER: PCT/US99/28313 FILING DATE: NO. US20020173463A1ember APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/070,440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: 2001-05
                                                                                                                                                                                                                                                                                    FILING DATE: December APPLICATION NUMBER: 09,
                                                                                                                                                                                                                                                                                                                                     APPLICATION
                                                                                                                                                                                                                                                                                                                                                      FILING DATE: September 16, 1998
APPLICATION NUMBER: PCT/US98/25108
FILING DATE: December 1, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: January APPLICATION NUMBER: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: December APPLICATION NUMBER: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: December APPLICATION NUMBER: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60
FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gerritsen, Mary
Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Roy, Margaret
Tumas, Daniel
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                   NUMBER: 09,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001-05-
                                                                                                                                                                                                                                    : 09/216,021
ber 16, 1998
: 09/218,517
ber 22, 1998
: 09/254,311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ber 11, 1997
: 60/069335
ber 11, 1997
: 60/069,278
ber 11, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   er 12, 1997
60/069,696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  er 11, 1997
60/069,425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60/067,411
er 3, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60/069,334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>/</u>866,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1998
                          30,
                                                                      30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POLYPEPTIDES
                                                                        1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUCLEIC
                                      δÃ
                                                                                              밁
                                                                                                                                δÃ
                                                                                                                                                                                           뮹
                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Homo
US-09-944-944-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
    601
                                                601
                                                                                              541
                                                                                                                                          541
                                                                                                                                                                                           481
                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>سر</u>
GECGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                          AGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                    CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCCTCTGCCCGGGCCACCCCCGGCCTTCCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                              GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                    AGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
ilarity 100.0%;
Conservative (
```

```
OR FILING DATE: December1, 1999

RAPPLICATION NUMBER: PCT/US99/30095

OR FILING DATE: December 16, 1999

OR APPLICATION NUMBER: PCT/US00/03565

OR FILING DATE: February 11, 2000

OR APPLICATION NUMBER: PCT/US00/04414

OR FILING DATE: February 22, 2000

OR FILING DATE: February 22, 2000
                                                                                                                                                                     OR FILING DATE: March 2, 2000

PRINCATION NUMBER: PCT/US00/08439

OR FILING DATE: MArch 30, 2000

OR APPLICATION NUMBER: PCT/US00/14042

OR APPLICATION NUMBER: PCT/US00/20710

OR APPLICATION NUMBER: PCT/US00/20710

OR APPLICATION NUMBER: PCT/US00/20710

OR APPLICATION NUMBER: PCT/US00/20710
APPLICATION NUMBER: PCT/US01/06520 FILING DATE: February 28, 2001 R OF SEQ ID NOS: 120
                                                                                                     APPLICATION NUMBER: PCT/US00/32678 FILING DATE: December 1, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US00/05841
```

Score 1377; Pred. No. 0; 0; Mismatches

띪

Length

0;

540

480 420 360 360 300

Indels Length

Gaps

60 60

1377; 0;

```
RESULT 5
US-09-944-907-41
                                                                                                                                                                                                                                                                                               Ωy
                                                                                                                                                                                                                                                                                                                           당
62
64
64
                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                    GENERAL INFORMATION:
APPLICANT: Baker, Ke
APPLICANT: Betstein
APPLICANT: Eaton, Da
APPLICANT: Ferrara,
APPLICANT: Gerritse
APPLICANT: Goddard,
APPLICANT: Goddard,
APPLICANT: Goddwski
APPLICANT: Godowski
APPLICANT: Gurney, A
APPLICANT: Hillan, K
APPLICANT: Napier, M
APPLICANT: Napier, M
APPLICANT: Napier, M
APPLICANT: Napier, M
APPLICANT: Tumas, Da
APPLICANT: Tumas, Da
APPLICANT: Wood, Wil
                                                                                                                                                                                                               Sequence 41,
Publication
   TITLE
                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
   INVENTION:
                    Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
Kljavin, Ivar
Napler, Mary
Roy, Margaret
Tumas, Daniel
Wood, William
                                                                                                                         Ferrara, Napoleone
Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
                                                                                                                                                                                                                , Application US/09944907 No. US20020198147A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                            GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCTICICGGATITCIGGIGIACICCGACIGGCACAGCICCCCAGICIITGCIIAGIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTTCGGGGGGTG
                                                                                                                                                                                                                                                                                GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                           Eaton', Dan
                                                                                                                                                                              Botstein, David
                                                                                                                                                                                            Kevin
  SECRETED AND TRANSMEMBRANE ACIDS ENCODING THE SAME
            POLYPEPTIDES
            AND
            NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                      1260
                                                                                                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: p2548p1C1
CURRENT APPLICATION NUMBER: US/09/944,907
CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
NUMBER OF SEQ ID NOS: 120
SEQ ID NO 41
LENGTH: 1377
TYPE: DNA
ORGANISM: Homo Sapien
                      밁
                                        QΨ
                                                                В
                                                                                    δÃ
                                                                                                             밁
                                                                                                                             δÃ
                                                                                                                                                        밁
                                                                                                                                                                            δõ
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                        멍
                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                 ₽
                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-907-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 1377
                                                                                                              661
                                                                                                                                   661
                                                                                                                                                         601
                                                                                                                                                                                                   541
                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                     361
                                           781
                                                                 721
                                                                                       721
                                                                                                                                                                             601
                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                           CGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTCCAGTTTTTCGGGGGGTG
                                                                                                                                                                                                                                                                                                                                   GGGACTGCGAGAGGACCCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCCTGGAGCACCA 120
                    GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGAGGCCTGAGGACCAAGT
                                                                                                                                                                                                              CTTCAGCGCCAAGCGCTCCGAAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                        CGTCCTGCTGCTGCGCCTGGCCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                   CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCCTTGCCCTT
                                                                                                                                                                                                                                             GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                         GGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
CGTCCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1377;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
```

480 480 420 420 360 360 300 300 240 240 180 180

540

```
APPLICANT: Baker, Kevin
APPLICANT: Botstein, David
APPLICANT: Beton, Dan
APPLICANT: Ferrara, Napoleone
APPLICANT: Ferrara, Napoleone
APPLICANT: Filvaroff, Ellen
APPLICANT: Gerritsen, Mary
APPLICANT: Gerritsen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Grimaldi, Christopher
APPLICANT: Grimaldi, Christopher
APPLICANT: Hillan, Kenneth
APPLICANT: Napier, Mary
APPLICANT: Napier, Mary
APPLICANT: Tumas, Daniel
APPLICANT: Wood, William
TITLE OF INVENTION: SECRETED AND TRANSMEMBRA
TITLE OF INVENTION: OCLOS
TITLE OF TELING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
NUMBER OF SEQ ID NOS: 120
                                ŝ
                                                                                                                                                                                                                                                                                                                                                   RESULT 6
US-09-944-929-41
                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                             S B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                             SEQ ID NO 41
LENGTH: 1377
TYPE: DNA
ORGANISM: HOMO:
S-09-944-929-41
                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                 Sequence 41, App
Publication No.
                                                                      SEQ
    Best
  Local Similarity
          Match
                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                   GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                           GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09944929 No. US20020197612A1
                                       Sapien
  100
  .03;
                                                                                                                                         ED AND TRANSMEMBRANE ENCODING THE SAME
  Score
Pred.
1377;
No. 0;
          DΒ
                                                                                                                                                   POLYPEPTIDES
          9;
          Length
                                                                                                                                                   AND
                                                                                                                                                   NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
              δÃ
                                                       δÃ
                                                                                              Š
 뮍
                                     밁
                                                                            밁
                                                                                                                    В
                                                                                                                                    Š
                                                                                                                                                           В
                                                                                                                                                                             δÃ
                                                                                                                                                                                                   뫄
                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
  1021
                   1021
                                      961
                                                         961
                                                                             901
                                                                                                 901
                                                                                                                     841
                                                                                                                                        841
                                                                                                                                                           781
                                                                                                                                                                               781
                                                                                                                                                                                                    721
                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ш
                                                                            GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                               CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                     GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                  CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                               CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                       GCCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGACTGCGAGAGGACCCCGGGGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                       CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                            GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                       CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                            GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                           AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGGTGACGGCAGGGCAGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                   AGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                   1080
  1080
                                                                                                                                        900
                                                                                                                                                                               840
                                                                                                                                                                                                                                        720
                                                                              960
                                                                                                                    900
                                                                                                                                                           840
                                                                                                                                                                                                   780
                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

1261 CTCTCCTTCTCTCTCATANACTANAAAAAAAAAAAAAAA	Qy 1081 GCACTCTCCGTCCTGCTGCTAGGAATGGGAACAGTĠGCTGTCTGCGATCAGGTCTG 1140
LING DATE: 1997-11 LING DATE: 1997-12 LING DATE: 1997-13 LING DATE: 1997-12 LING DATE: 1997-13 LING DATE: 1997-13 LING DATE: 1997-14 LING DATE: 1997-14 LING DATE: 1997-14 LING DATE: 1997-17 LING DATE: 1998-07 LING DATE: 19	FILING DATE: APPLICATION N

R APPLICATION NUMBER:
R FILING DATE: 1998-03
R APPLICATION NUMBER:
R FILING DATE: 1998-04
R APPLICATION NUMBER:

NUMBER: 60/ : 1998-03-31 9 60/081229 /081203

```
δõ
                                   δã
                                                               Ş
                                                                                         δÃ
                                                                                                        B
                                                                                                                  Q
                         밁
                                                   밁
                                                                               В
                                                                                                                                   밁
                                                                                                                                              Ş
                                                                                                                                                             밁
                                                                                                                                                                         Š
                                                                                                                                                                                       밁
                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1998-07-01
APPLICATION NUMBER: 60/091519
FILING DATE: 1998-07-02
APPLICATION NUMBER: 60/091982
FILING DATE: 1998-07-07
                                                                                                                                                            541
901
            901
                         841
                                      841
                                                                                          721
                                                                                                         661
                                                                                                                                                                         541
                                                                                                                                                                                       481
                                                    781
                                                                 781
                                                                               721
                                                                                                                     661
                                                                                                                                   601
                                                                                                                                                601
                                                                                                                                                                                                   481
                                                                                                                                                                                                                 421
                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                            .
61
                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                      \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                   -
GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCCTGAGGACCTGAGGACCAAGT
                                                                              CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                            CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                     GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                              GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                          CGACCGCGTGCTGGAGCAGGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                TGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                  CGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                     CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                       GACTAGTTCTCTTGGGAGTCTGGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                             GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1377;
Pred. No. 0;
D; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                          780
                                                                                                                                               660
                                                                                                                                                                                     540
                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                          420
960
             960
                          900
                                      900
                                                   840
                                                                 840
                                                                              780
                                                                                                        720
                                                                                                                     720
                                                                                                                                   660
                                                                                                                                                             600
                                                                                                                                                                         600
                                                                                                                                                                                                   540
                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

DR FILING DATE: 1998-04-09

RAPPLICATION NUMBER: 60/081695

OR APPLICATION NUMBER: 60/081817

PRITING DATE: 1998-04-15

OR APPLICATION NUMBER: 60/081818

OR FILING DATE: 1998-04-15

OR APPLICATION NUMBER: 60/082999

OR FILING DATE: 1998-04-24

OR APPLICATION NUMBER: 60/08345

OR FILING DATE: 1998-04-29

OR FILING DATE: 1998-04-29

OR APPLICATION NUMBER: 60/08345

OR FILING DATE: 1998-04-29

OR FILING DATE: 1998-05-07

OR FILING DATE: 1998-05-07

OR APPLICATION NUMBER: 60/084637

OR APPLICATION NUMBER: 60/08534

OR FILING DATE: 1998-05-12

OR APPLICATION NUMBER: 60/08533

OR FILING DATE: 1998-05-13

OR APPLICATION NUMBER: 60/08533

OR FILING DATE: 1998-05-13

OR APPLICATION NUMBER: 60/08533

OR APPLICATION NUMBER: 60/08533

OR APPLICATION NUMBER: 60/08533

OR APPLICATION NUMBER: 60/08533

OR APPLICATION NUMBER: 60/08537

OR APPLICATION NUMBER: 60/08537

OR APPLICATION NUMBER: 60/08577

OR APPLICATION NUMBER: 60/086414

OR APPLICATION NUMBER: 60/086414

OR APPLICATION NUMBER: 60/08677

OR APPLICATION NUMBER: 60/08977

OR APPLICATION NUMBER: 60/08977

OR APPLICATION NUMBER: 60/08997

OR APPLICATION NUMBER: 60/089987

OR APPLICATION NUMB

```
g
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dp
Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
           밁
                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-121-049-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                             US-10-121-049-361
                                                   Query Match
Best Local S
Matches 1377
                                                                                                                          CURRENT FILING DATE: 2002-04-12

Prior Application removed - See File Wrapper NUMBER OF SEQ ID NOS: 550

SEQ ID NO 361

LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 361, Application US/10121049 Publication No. US20030022239A1 GENERAL INFORMATION:
                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
                                                                                                      LENGTH: 1377
TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                              FILE REFERENCE: P3330R1C17
CURRENT APPLICATION NUMBER: US/10/121,049
                                                                                                                                                                                               APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                    1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                      GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                          Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
           GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACTCTCCGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                 Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                             Gao, Wei-Qiang
Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                    Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                         DeForge, Laura
                                                                                                                                                                                                                                                       Tumas, Daniel
                                                                                                                                                                                                                                                               Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                  Beresini, Maureen
                                                   100.
nilarity 100.
Conservative
                                                                                                       Sapien
                                                                                                                                                                                                                                                                                                                                                                                               ۳.
                                                             . 0%;
                                                   0
                                                             Score 1377;
Pred. No. 0;
                                                   Mismatches
                                                                        DВ
                                                                                                                                                                                                            POLYPEPTIDES
                                                  0;
                                                                      9;
                                                                                                                                                           e
R
                                                                       Length
                                                                                                                                                           Palm
                                                                                                                                                                                                              AND
                                                  0;
                                                                                                                                                                                                              NUCLEIC
                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
           60
                                     õ
                                                            밁
                                                                               õ
                                                                                                                     õ
                                                                                                                                               밁
                                                                                                                                                              δÃ
                                                                                                                                                                                      밁
                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                               QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                   밁
                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                  1021
                                                                                                      961
                                                                                                                          961
                                                                                                                                               901
                                                                                                                                                                                         841
                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                    901
                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGAGGCTGACAACCA
                                                                                                                                                          CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                  CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCAGCGCCAAGCGCTCCGAGAGCCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                            GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                               GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCCTGGAGGACCAAGT
                                                                                                                                                                                                                                                                         GCCGGGACCCGCGGGCCCACCGGGCCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                  GGGACTGCGAGAGGACCCCGGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCCATCGGGGAGCCGGGAGGG
GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGCAA 1200
                                                                                                      CCCACTGCAAAGTGAGCTCATGCTCCTCACTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                               CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                       CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCGAGGGCGGGAGCCGGGGACCTCGAGGGGGACCCCGGGCCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCGAGGCGGGAGGCCGGGGACTTCCAGGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGGTGACGGCAGGGCAGGGCGCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                             1080
                                                                                                                           1020
                                        1140
                                                                                  1080
                                                                                                      1020
                                                                                                                                               960
                                                                                                                                                                    960
                                                                                                                                                                                         900
                                                                                                                                                                                                            900
                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
```

41 CGTCCTGCTGCTGCTGGGCCTGGCCGGCCGGCCTCGCCCCCC	QY 181 GGGACTGCGAGAGGGACCCCGGCGTCCGGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT 2	OY 121 CCAACTGGAGGGTCCGGAAGTAGCGAGGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG 1	Oy 61 TGGGGTGACGGCAGGGCAGGGGCCCTGGCCGGGGAAAGCGCGGGGGCTGGAGCACCA 1	QY 1 GACTAGTTCTCTTGGAGTCTGGGAGGAAAGCGGAAGCAGGAGCGAGC	Query Match 100.0%; Score 1377; DB 9; Length 1377; Best Local Similarity 100.0%; Pred. No. 0; Matches 1377; Conservative 0; Mismatches 0; Indels 0; Gaps	LENGTH: TYPE: DN ORGANISM IS-10-123-90	CURRENT FILING DATE: 2002-(Prior Application removed - NUMBER OF SEQ ID NOS: 550 SEQ ID NO 361	TITLE OF INV TITLE OF INV FILE REFEREN CURRENT APPL	; APPLICANT: Tumas, Daniel ; APPLICANT: Watanabe, Colin K ; APPLICANT: Wood, William ; APPLICANT: Zhang, Zemin	APPLICANT: APPLICANT: APPLICANT: APPLICANT:		APPLICANT: APPLICANT: APPLICANT:	; Sequence 361, Application US/10123904 ; Publication No. US20030022328A1 ; GENERAL INFORMATION: ; APPLICANT: Baker, Kevin P.	RESULT 9 US-10-123-904-361	QY 1321 GATCACTCAATAAACCTAAGAACCCTCATAAAAAAAAAA	Qy 1261 CTCTGCTTCTCTGGATCCTCCCCACCCCTCCTGCTGCTGCTGCGGCCCTTTTTCTCAGA:	Qy 1201 GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC:	
	240	180	120	60	0,		·									1320	1260	1200
Qy	Db QY	D Db	Db Oy	Qy Db	Qy Db	Оy	Qy	ОУ	Qу	Qy	Qy Db	dd Qy	Qy	Оy	Db Qy	Db .	ם של שלים	Q B
1321 GATCACTCAATAAACCTAAGAACCCTCATAAAAAAAAAA	1261 CTCTGCTTCTCGGACCCTCCCACCCCCTCCTGCTGCGGCCCGGCCCTTTTCTCAGA 1320 1261 CTCTGCTTCTCGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCGGCC	GTGTAAGTCCCCCAGTTCCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCCTGGTC	GCAGCARGGGCAGTGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGGCAG 	GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTGCGATCAGGTCTG 	GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA	961 CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020 	901 CACCITCICCGGATTICIGGIGTACICCGACIGGCACAGCICCCCAGICTIGCTTAGIG 960 	841 GTGGGTGCAGGTGGGTGTGGCTACATTGGCATCTATGCCAGCATCAAGACAGAC	781 GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAGT 840	721 GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTT	661 CCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA 720	601 CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG 660 	541 CTTCAGCGCCAAGCGCTCCGAGAGCCCGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT 600	481 GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC 540	421 AGGCGAGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGACCCCGGGCCGCGAGGAGA 480			241 CGTCCTGCTGCTCCTGGGCCTGGCCGGCCCGCCCCCACTGGACGACAACAAGATCCC 300 301 CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGGCCGGC

```
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gao, Wei-Qiang
APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Sherwood, Steven
APPLICANT: Sherwood, Steven
APPLICANT: Sherwood, Steven
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Lhang, Zemin
ITITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C160
CURRENT APPLICATION NUMBER: US/10/140,470
CURRENT FILING DATE: 2002-05-06
PUTOL APPLICATION TEMOVED - See Palm OF File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: DNA
; ORGANISM: Homo
US-10-140-470-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
US-10-140-470-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Prior Application removed -
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 361, Applic Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
APPLICANT:
                                                                 361
                                                                                                                                           301
                                                                                                                                                                        241
                                                                                                                                                                                                                          181
                421
                                       421
                                                                                          361
                                                                                                                    301
                                                                                                                                                                                                241
                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei-Qiang
Geritsen, Mary E.
                                                                                                                 CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                           GGGACTGCGAGAGGACCCCGGGCGTCCGGGGCCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                             TGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCCGGGGAGAAGCGCGCGGGGCCTGGAGCACCA
             CGTCCTGCTGCTGGGCCTGGCCGGCCCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                  CGTCCTGCTGCTGCTGGGCCTGGCCGGCCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                           GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                             TGGGGTGACGGCAGGGGCAGGGGGCCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/10140470
o. US20030022331A1
                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
llarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1377;
Pred. No. 0;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            9;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                       480
                                                                                                                                                                                                                                                                                                                             120
                                                                 420
                                                                                         420
                                                                                                                                                                                                                                                                                                                                                      120
                480
                                                                                                                                           360
                                                                                                                                                                        300
                                                                                                                                                                                                300
                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
Sequence 361, Applica
publication No. US200
GENERAL INFORMATION:
APPLICANT: Baker, Key
APPLICANT: Berosini
APPLICANT: Desnoyer
APPLICANT: Desnoyer
APPLICANT: Filvant:
APPLICANT: Gerritse
                                                                                                                               RESULT 11
US-10-175-746-361
                                                                                                                                                                                    B 5
                                                                                                                                                                                                                                                            ρ
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                           Ωy
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                ğ
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                 ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                    1321
                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                 CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTCGGGGGGTG
                                                                                                                                                                                                                                     GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGACGACTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGAGGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                             Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGACCGCGTGCTGGTGAACGAGCAGGGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                              GCACTCTCCGTCCTGCTGCTGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
            Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei-Qiang
                                                  Beresini, Maureen
DeForge, Laura
                                                                                                       Application US/10175746 b. US20030027270A1
                                                                              סי
```

1020

960 960 900 900 840 840 780 780 720 720 660 660 600 600

1080

1080 1020

1140

1140

1200

g S

В δ В ΩY В Ş В ρ 밁 δÃ

```
; LENGTH: 1377
; TYPE: DNA
; ORGANISM: HOMO $
US-10-175-746-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Gurney, Austin L.
APPLICANT: Sharwood, Steven
APPLICANT: Sharwood, Steven
APPLICANT: Smith, Victoria
APPLICANT: Stewart, Timothy A.
APPLICANT: Watanabe, Colin K
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Watanabe, Colin K
APPLICANT: Shang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POI
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P333OR1C353
CURRENT APPLICATION UNUMBER: US/10/175,746
CURRENT APPLICATION UNUMBER: US/10/175,746
CURRENT ELLING DATE: 2002-06-19
Prior Application removed - See File Wrapper or Pa
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
              Ş
                                         밁
                                                         δ
                                                                                    밁
                                                                                                               Qy
                                                                                                                                             몽
                                                                                                                                                                δ
                                                                                                                                                                                           망
                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                           ΩÝ
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                 661
                                                                 601
                                                                                           541
                                                                                                                     541
                                                                                                                                                481
                                                                                                                                                                        481
                                                                                                                                                                                                 421
                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         بر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                     CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                        CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                              CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCGCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                 CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCGGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                          GGCGGGACCCGCGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                               CGTCCTGCTGCTGCGCCTGGCCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                   GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                         CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                  CTTGCCGGGGCGGGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                       CGTCCTGCTGCTCCTGGGCCTGGCCGGCCCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                         GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                              GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                          AGGCGAGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                     CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1377;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEIC
                                                                                                                                                                                                                                                                          420
                                                                                                                   600
                                         660
                                                                 660
                                                                                           600
                                                                                                                                             540
                                                                                                                                                                     540
                                                                                                                                                                                                480
                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                               RESULT 12
US-10-176-918-361
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               덩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                  APPLICANT: Baker, Kevin F
APPLICANT: Beresini, Mau
APPLICANT: Berorge, Lau
APPLICANT: Desnoyers, Lu
APPLICANT: Filvaroff, El
APPLICANT: Gao, Wei-Qian
APPLICANT: Gerritsen, Ma
APPLICANT: Gerritsen, Ma
APPLICANT: Goddard, Andr
                                                                                                                                                                                                                                                                         Sequence 361, Applic Publication No. US20 GENERAL INFORMATION:
                                                                                        APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                             APPLICANT:
APPLICANT:
APPLICANT: Wood, William
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C382
CURRENT APPLICATION NUMBER: US/10/176,918
                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                     1261
                                                                                                                                                                                                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                Stewart, Timothy A
Tumas, Daniel
Watanabe, Colin K
Wood, William
Zhang, Zemin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCCACGGTGGGGGTGCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                            Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
                                                                                                                  Sherwood, Steven Smith, Victoria
                                                                                                                                                                                 Gao, Wei-Qiang
Gerritsen, Mary E.
                                                                                                                                                                                                           Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                    DeForge, Laura
                                                                                                                                                                                                                                                 Beresini, Maureen
                                                                                                                                                                                                                                                                                      Application US/10176918 o. US20030027275A1
                                                                                                                                                                                                                                                               ۳.
                                        POLYPEPTIDES
```

1140 1140

960 960 900 840 840 780

900

AND

NUCLEIC

```
β
δ
                                                                                      g Qy
                                                                                                                  망
                                                                                                                               Qy
                                                                                                                                                Ъ
                                                                                                                                                             Qγ
                                                                                                                                                                           Вb
                                                                                                                                                                                          ρ
                                                                                                                                                                                                          Вþ
                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                      뫄
                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                              γQ
                                                                                                                                                                                                                                                                                                                                Ъ
                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                        Qy
           ρ
                             g Qy
                                                                                                                                                                                                                                                                                                                                                                                                                          ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                      QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: DNA
; ORGANISM: Homo Sapien
US-10-176-918-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrapper NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                 541
                                                                                                                                                                541
                                                                       721
                                                                                       661
                                                                                                    661
                                                                                                                     601
                                                                                                                                   601
                                                                                                                                                                                              481
                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                              181
              841
                             781
                                          781
                                                          721
                                                                                                                                                                                481
                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                              CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                           TGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCCGGAGCCTGAGGACCAGT
                                                                                     CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                    CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                 CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                               GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                     CAGCCTCTGCCCGGGGCACCCCGGGCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                   CGTCCTGGTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGAACAACAACATCCC
                                                                  AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                          CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCGCCCCGGGGGCTCCGGGAGAGAA 420
                                                                                                                                                                                                                                                                                                                                         GGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
        GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
100.0%; Score 1377; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                          420
                                                                                      720
                                                                                                     720
                                                                                                                    660
                                                                                                                                  660
                                                                                                                                                                600
                                                                                                                                                                                             540
                                                                                                                                                                                                            480
                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                              180
900
              900
                            840
                                           840
                                                          780
                                                                        780
                                                                                                                                                  600
                                                                                                                                                                               540
                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                          60
```

```
Ş
                                                                            ; LENGTH: 1377
; TYPE: DNA
; ORGANISM: Homo Sapien
US-10-176-921-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
US-10-176-921-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Дd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                 APPLICANT: Baker, Kevin p
APPLICANT: Beresini, Mau
APPLICANT: Descoyer, Lu
APPLICANT: Descoyers, Lu
APPLICANT: Filvaroff, El
APPLICANT: Filvaroff, El
APPLICANT: Gao, Wei-Qian
APPLICANT: Gerritsen, Ma
APPLICANT: Gerritsen, Ma
APPLICANT: Godowski, Pau
APPLICANT: Godowski, Pau
APPLICANT: Godowski, Pau
APPLICANT: Sherwood, Ste
APPLICANT: Sherwood, Ste
APPLICANT: Sherwood, Ste
APPLICANT: Sherwart, Time
APPLICANT: Stewart, Time
APPLICANT: Stewart, Time
APPLICANT: Stewart, Time
                                                                                                                 APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C288
CURRENT FILING DATE: 2002-06-20
CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 361, Application No. US20 GENERAL INFORMATION
                         Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                   APPLICANT: I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
1 GACTAGTTCTCTTGGGAGTCTGGGAGGGAGGGAAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                    Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCACTGCAAAGTGAGCTCATGCTCTACACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                  Gao, Wei-Qiang
Gerritsen, Mary E.
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                           Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                         Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                      DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                     веresini, маштееn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/10176921
o. US20030027276A1
                       100.0%; Score 1377; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٦.
                                                   DB
                         ö
                                               9;
                                                  Length
                                                   1377;
                         0;
                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1140
60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                          0
```

Оу

δ 밁

	601 CGACCGCGTGATGAACGAGCAAGGACATTACGACGCGTCACCGCCAAGTTCACCTG	CAGCCTTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGCCACCATGCCAGGCAGG	
1377; Conservative 0; 1 GACTAGTTCTCTTGGAGTCTC	; APPLICANT: Wood, William ; APPLICANT: Zhang, Zemin ; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ; TITLE OF INVENTION: ACIDS ENCODING THE SAME ; FILE REFERENCE: 93300RLC154 ; CURRENT APPLICATION NUMBER: US/10/137,865 ; CURRENT FILING DATE: 2002-05-03 ; Prior Application removed - See Palm or File Wrapper ; NUMBER OF SEQ ID NOS: 550 ; SEQ ID NO 361 ; SEQ ID NO 361 ; LENGTH: 1377 ; TYPE: DNA ; ORGANISM: Homo Sapien US-10-137-865-361 Query Match Query Match 100.0%; Score 1377; DB 9; Length 1377; Best Local-Similarity 100.0%; Pred. No. 0;	RESULT 14 US-10-137-865-361 Sequence 361, Application US/10137865 Publication No. US20030032155A1 GENERAL INFORMATION: APPLICANT: Baker, Kevin P. APPLICANT: DeForge, Laura APPLICANT: DeForge, Laura APPLICANT: Desnoyers, Luc APPLICANT: Gao, wei-Qiang APPLICANT: Gao, wei-Qiang APPLICANT: Goddard, Audrey APPLICANT: Goddard, Audrey APPLICANT: Goddard, Audrey APPLICANT: Goddard, Audrey APPLICANT: Godwarki, Paul J APPLICANT: Smith, Victoria APPLICANT: Smith, Victoria APPLICANT: Swith, Victoria APPLICANT: Tumas, Daniel APPLICANT: Watanabe, Colin K	Qy 1141 GCAGCATGGGGCAGTGGCTGGCTGGCAAGACCAGAGGAACCAGTGGCTGTCTGCGATCAGGTCAGATCAGGTCAGTGGCTGGC

1

Š 밁 δÃ B δÃ

Š В ρy

뭐 Ş 밁 Qy

ρ 멍

В Š 밁 δ 뫄 δÃ В δõ 밁 δ 망 Ş В Qy ₽ δÃ Бр

밁

망

g Q

```
1081
                                                                             1141
                                                                                              1081
                                                                                                                                1021
        1261
                          1201
                                                                                                                                                1021
                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                 961
                                                                                                                                                                                   961
                                                                                                                                                                                                   901
                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGGCACCATGGCAGCCAGGGCCTCCTGCCCGGGCCACCCATGGCAGCCAGGGCACCAGGGCACCATGGCAGCCAGGGCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                           CTTCAGCGCCAAGCGCTCCGAGAGCCCGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACTCGAGGGGACCCCGGGCCCGCGAGGAGA
                                                           GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                             GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                         GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                      GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                              CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                           1200
                                                                                                                                1080
                                                                                                                                                                 1020
                                                                             1200
                                                                                             1140
                                                                                                              1140
                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                          1260
                                           1260
                                                                                                                                                                                                   960
                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                      900
```

5 B 5

80 PB

QΥ

Db Db

δ δ

0 y 0 y 0 y

```
; LENGTH: 1377
; TYPE: DNA
; ORGANISM: Homo S
US-10-140-474-361
                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
US-10-140-474-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                멍
                                           δã
                                                                   밁
                                                                                      Ωy
                                                                                                                밁
                                                                                                                                      VQ
                                                                                                                                                               밁
                                                                                                                                                                                     Qy
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                              γQ
                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P333OR1C162
CURRENT FILING DATE: 2002-05-06
Prior Application removed - See Palm or File Wrapper
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 361, Application US/10140474 Publication No. US20030032156A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                 181
                                                                                                                                                                                                               121
                     361
                                            361
                                                                    301
                                                                                           301
                                                                                                                   241
                                                                                                                                                                                       181
                                                                                                                                                                                                                                     121
421
                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
smith, Victoria
Stewart, Tinothy A.
Tumas, Daniel
Watanabe, Colin K
Wood, William
                                                                                                                                                                                                              TGGGGTGACGGCAGGGGAGAGGGGGCCTGGCCCGGGGAGAAGCGCGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                      GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGÁGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                  GACTAGTTCTCTTGGAGTCTGGGAGGAAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker, Kevin
                                                                                                                                                                            GGGACTGCGAGAGGACCCCGGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                   CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                               GGGACTGCGAGAGGACCCCGGCGTCCGGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGA
                      CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCGCCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                   Sapien
                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                        Score 1377;
Pred. No. 0;
O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                9;
                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1377
                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                   120
 480
                      420
                                             420
                                                                       360
                                                                                            360
                                                                                                                   300
                                                                                                                                          300
                                                                                                                                                                 240
                                                                                                                                                                                       240
                                                                                                                                                                                                               180
                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                          0
```

7	GATCACTCAATAAACCTAAGAACCCTCATAAAAAAAAAA	1321	₽ 2
1320	CTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCTGGGGCCGGCC	1261	8 8
6 6	CTCTTCCTGGTC	20	B 5
20	GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGCCAA	14	, B 5
1140 1140	GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG	08	β Q
1080	GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA	02	g 2
1020 1020	CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA	961 961	Db Qy
960	CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG	0 0	B 6
900	GTGGGTGCAGGTGGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAGAC	841	₽ 2
840 840	GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT	781 781	β 24
780 780	TCCATTGCCTCTTTCTTCCAGTTTTTCGGGGGGTG 	721 721	ρ ₀
720 720	CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA	661	ρ δ
660	. CGACCGCGTGCTGGACGAGCAGCGACGACATTACGACGCCGTCACCGGCAAGTTCACCTG		유 2
600	CCCTT	541	g Q
540 540	GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC	481 481	_ B 5
480		421	Ъ

Search completed: June 21, 2003, 15:54:34 Job time : 257 secs

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     June 21, 2003, 11:25:35 ; Search time 251 Seconds (without alignments) 8050.387 Million cell updates/sec
  100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                             Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1042519 segs, 733713590 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-944-944-41
1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Published_Applications_NA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cgn2_6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                  /cgn2_6/ptodata/2/pubpna/US09_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US60_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US60_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
                             DB
               US-09-944-896-41
US-09-944-907-41
US-09-944-907-41
US-09-944-907-361
US-10-121-049-361
US-10-123-904-361
US-10-176-918-361
                                                                                                                                                                                                                       US-09-944-413-41
US-09-944-403-41
US-09-944-896-41
                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                          Description
                                                                                                                                                 Sequence
Sequence
Sequence
                                                                                                                                                                                         Sequence
Sequence
Sequence
Sequence
                        Sequence
Sequence
Sequence
Sequence
                                                                                                          Sequence
Sequence
Sequence
                                                                               Sequence
Sequence
                                                                                                                                                                                                                                                Sequence
US-09-944-413-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
```

4.5	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377
100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
US-10-123-910-361	-909-	US-10-123-908-361	-903	-215	US-10-121-047-361	-04	US-10-121-041-361	-09-944-884	-10-160-498	-10-140-925	822	24	-10-123-903	-10-12	-10-12	-10-14	US-10-140-921-361	10	US-10-123-236-361	US-10-123-108-361	US-10-143-032-361	US-10-141-755-361	US-10-121-050-361	US-10-142-423-361	US-10-123-262-361
Sequence 361, App	Sequence 361, App		361	361	361	361	361	41,	361	361	361	361	361		361,	361,	361,	361,	361,	361,			361,		

ALIGNMENTS

```
APPLICANT: ROY, Margaret
APPLICANT: Tunnas, Daniel
APPLICANT: Wood, William
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: SCIENCE ENCODING THE SAME
FILE REFERENCE: P2548P1C1
CURRENT APPLICATION NUMBER: US/09/944,413
CURRENT APPLICATION NUMBER: US/09/944,413
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,378
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 41, Application US/09944413 Patent No. US20020156004A1
                                                                PRIOR APPLICATION NUMBER: 60/069,425 PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069, PRIOR FILING DATE: December 16, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Napier, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Grimaldi,Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Godowski, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kevin
```

```
; LENGTH: 1377
; TYPE: DNA
; ORGANISM: HOMO S
US-09-944-413-41
                 Š
                                                      Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                NUMBER OF
                                                                                                                                                                                       ) ID NO 41
ENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IOR FILING DATE: December 16, 1998
(OR APPLICATION NUMBER: 09/218,517
(OR FILING DATE: December 22, 1998
(OR APPLICATION NUMBER: 09/254,311
(OR FILING DATE: March 3, 1999
(OR APPLICATION NUMBER: PCT/US99/12252
OR FILING DATE: June 22, 1999
OR APPLICATION NUMBER: PCT/US99/21090
OR APPLICATION NUMBER: PCT/US99/28409
                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US00/32678
FILING DATE: December 1, 2000
APPLICATION NUMBER: PCT/US01/06520
FILING DATE: February 28, 2001
                                                                                                                                                                                                                                                                                                                    FILING DATE: March 30, 2000
APPLICATION NUMBER: PCT/US00/14042
FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
FILING DATE: July 28, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/US98/25108
FILING DATE: December 1 100
                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: February 22, 2000
APPLICATION NUMBER: PCT/US00/05841
FILING DATE: MATCH 2, 2000
APPLICATION NUMBER: PCT/US00/08439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/146,222 FILING DATE: July 28, 1999 APPLICATION NUMBER: PCT/US98/19330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/074,092
FILING DATE: February 9, 1998
APPLICATION NUMBER: 60/075,945
FILING DATE: February 25, 1998
APPLICATION NUMBER: 60/112,850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: February 1 APPLICATION NUMBER: PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US00/03565 FILING DATE: February 11, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US99/30095 FILING DATE: December 16, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US99/28313 FILING DATE: No. US20020156004A1ember
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/216,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60, FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION |
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                   GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                Ħ
                                                        Conservative
                                                                                                                                                    Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER:
                                                                                                                                                                                                                              February 28,
OS: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      December1, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER: PCT/US99/28409
No. US20020156004A1ember
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         December
                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  y 5, 1998
60/074,086
ry 9, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ,890/09
T ,'T
                                                                                                                                                                                                                                                                                                                                                                                                  PCT/US00/08439
30, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/070,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/069,702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16, 1998
0/113,296
22, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /US00/04414
                                                      0;
                                                      Score 1377;
Pred. No. 0;
O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30,
                                                                                           DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1999
                                                      0,
                                                      Indels
                                                                                           Length
                                                  ĵ.
                                                      Gaps
                 60
                                                      0
밁
                             Š
                                                                        뮻
                                                                                                 Qy
                                                                                                                                                뎧
                                                                                                                                                                             δÃ
                                                                                                                                                                                                                          뫄
                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                     1081
                                                                        1021
                                                                                                           1021
                                                                                                                                                  961
                                                                                                                                                                                       961
                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                      GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                                                                CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                                                                                              CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                         GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAGT
                                   GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG 1140
                                                                                                                                                                                                                                                                                                    CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTCCTGCTGCTGCGCCTGGCCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCGAGGCGGGAGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGACTGCGAGAGGACCCCCGGCGTCCGGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGTGACGGCAGGGGGGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACTAGTTCTCTTGGAGTCTGGGAGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTCCTGCTGCTCGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGGTGACGGCAGGGCAGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
```

В

1261

ΩV

QΥ

밁

US-09-944-403-41

GENERAL INFORMATION

APPLICANT: Baker,

Kevin

밁 δÃ 밁 20

1201

1141 1201

```
Sequence 41, Application US/09944403 Patent No. US20020165143A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Wood, William
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P2548P1C1
FILE REFERENCE: P2548P1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR FILING DATE: December 3, 1997
PRIOR FILING DATE: December 3, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/944,403
CURRENT FILING DATE: 2001-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/06935
PRIOR FILING DATE: December 11, 1997
         R APPLICATION NUMBER: 60/070,4
NR FILLNG DATE: January 5, 1998
NR APPLICATION NUMBER: 60/074,0
NR FILLNG DATE: February 9, 199
NR APPLICATION NUMBER: 60/074,0
                                                                                                                                                                                                 FILING DATE: December 10, 1970
APPLICATION NUMBER: 60/069,870
                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: December 11, 1997
APPLICATION NUMBER: 60/069,425
FILING DATE: December 12, 1997
                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/069,702
FILING DATE: December 16, 1997
ADDITIONATION TOTAL PROPERTY NUMBER: 1997
                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/069,696 FILING DATE: December 16, 1997
                                                                                                            FILING DATE: December 17, 1
APPLICATION NUMBER: 60/068,
FILING DATE: December 18, 1
                                                                                                                                                                              FILING DATE: December 17, 1 APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/069,694
                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/069,278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ferrara, Napoleone
                                                                      1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POLYPEPTIDES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                   Q
                                                                                     밁
                                                                                                                             δÃ
                                                                                                                                                                            밁
                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: PCT/VS98/25108
PRIOR FILING DATE: December 1, 1998
PRIOR PRIOR APPLICATION NUMBER: 09/216,021
PRIOR PELING DATE: December 16, 1998
PRIOR PELING DATE: December 22, 1998
PRIOR PELING DATE: December 22, 1998
PRIOR APPLICATION NUMBER: 09/254,311
PRIOR PELING DATE: March 3, 1999
PRIOR APPLICATION NUMBER: PCT/VS99/12252
PRIOR APPLICATION NUMBER: PCT/VS99/21090
PRIOR APPLICATION NUMBER: PCT/VS99/21090
PRIOR APPLICATION NUMBER: PCT/VS99/21090
PRIOR PILING DATE: No. US20020165143A1ember 30, 19
PRIOR APPLICATION NUMBER: PCT/VS99/2813
PRIOR APPLICATION NUMBER: PCT/VS99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-944-403-41
                                                                                                                                                                                                                                                                                                                                                             Matches 1377;
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ
SEQ ID NO 41
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: PCT/US01/06520 PRIOR FILING DATE: February 28, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: December, .... 30095
APPLICATION NUMBER: PCT/US99/30095
TTING DATE: December 16, 1999
TTING DATE: December 16, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: December 16, 1998
APPLICATION NUMBER: 60/113,296
FILING DATE: December 22, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US00/14042
FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: February 22, 2000
APPLICATION NUMBER: PCT/US00/05841
FILING DATE: March 2, 2000
APPLICATION NUMBER: PCT/US00/08439
FILING DATE: March 30, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/146,222
FILING DATE: July 28, 1999
APPLICATION NUMBER: PCT/US98/19330
FILING DATE: September 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/112,850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/075,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: July 28,
181
                                        181
                                                                                     121
                                                                                                                                 121
                                                                                                                                                                              61
                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                         1 GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                    TGGGGTGACGGCAGGGCAGGGGGCCCTGGCCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                        GGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                  CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                 CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                            TGGGGTGACGGCAGGGCAGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                      GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      December
                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000
                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                Score 1377;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                        DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999
                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                     9;
                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                          1377;
                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                           Gaps
                                        240
                                                                                                                               180
                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                   60
                                                                                     180
                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                           0;
```

APPLICANT: APPLICANT: APPLICANT:

Roy, Margaret Kljavin, Ivar

Napier, Mary

APPLICANT: APPLICANT: APPLICANT:

APPLICANT:

APPLICANT:

APPLICANT:

APPLICANT:

Š

1321

1377

```
.1081
                                                                                  1141
                                                                                                        1141
                                                                                                                             1081
                                                                                                                                                                      1021
                                          1201
                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                               961
                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                       GCACTCTCCGTCCTGCTGCCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                    GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                 GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTTCGGGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                                                              CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                      GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCCTGAGCCTTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTGCCGGGCCGCGATGGCCGCGACGGCGACGGCGCCCCGGGGCTCCGGGACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
CTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCCTTTTCTCAGA
                                                                                   GCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                           GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                     CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGCGAGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCGAGGGCGGGAGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                          GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
1320
                                                              1260
                                                                                   1200
                                                                                                       1200
                                                                                                                           1140
                                                                                                                                                1140
                                                                                                                                                                                          1080
                                                                                                                                                                                                               1020
                     1320
                                          1260
                                                                                                                                                                      1080
                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
```

δÃ

밁

δÃ 밁 δÃ 밁 Ş 밁 δõ

밁

밁 δ В Qy

1

B. 6

밁 δÃ В 8 밁 Q 밁 δ В δÃ 밁 δõ g Qy 뫄 Ş 밁 δŌ 밁 Qy

```
RESULT 3
US-09-944-896-41
; Sequence 41, Application US
; Sequence 40, US20020168715A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/944,89
CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION UNMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069335
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 16, 1997
PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
        PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                              PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                               IOR APPLICATION NUMBER: 60/069,694
TOR FILING DATE: December 16, 1997
TOR APPLICATION NUMBER: 60/069,702
TOR APPLICATION NUMBER: 60/069,870
TOR APPLICATION NUMBER: 60/069,870
TOR APPLICATION NUMBER: 60/069,873
TOR APPLICATION NUMBER: 60/069,873
TOR APPLICATION NUMBER: 60/069,873
TOR APPLICATION NUMBER: 60/069,873
TOR APPLICATION NUMBER: 60/069,073
TOR APPLICATION NUMBER: 60/070,440
TOR APPLICATION NUMBER: 60/070,440
TOR FILING DATE: December 18, 1997
TOR APPLICATION NUMBER: 60/070,440
TOR FILING DATE: February 5, 1998
TOR APPLICATION NUMBER: 60/074,092
TOR APPLICATION NUMBER: 60/074,092
TOR APPLICATION NUMBER: 60/075,445
                                                                                                                                                                                                      R APPY
DR FILING DATE: December 2

DR APPLICATION NUMBER: 60,

DR FILING DATE: July 28,

DR APPLICATION NUMBER: PCT

DR FILING DATE: September

DR APPLICATION NUMBER: PCT

DR FILING DATE: December 1

DR APPLICATION NUMBER: 09,

DR FILING DATE: December 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        t No. Usavez
AL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Roy, Margaret
Tumas, Daniel
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Godowski, Paul
Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gerritsen, Mary
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Napier, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N NUMBER: 60/069,696
E: December 16, 1997
N NUMBER: 60/069,694
E: December 16, 1997
                                                                                                                                                                                                                                                                                                              : February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kevin
                                                                                                                NUMBER: PCT/US98/19330
September 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/09944896
                                                                                                                                                                       : 60/075,945

ary 25,1998

: 60/112,850

ber 16,1996

: 60/113,296

: 60/113,296

ber 22,1998

: 60/146,222

28,1999
        er 1, 1998
09/216,021
er 16, 1998
                                                                                         PCT/US98,
                                                                                      /25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1377
```

```
밁
                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                               뮹
                                                                                                        δÃ
                                                                                                                                                        밁
                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QY
                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FI
PRIOR AP
PRIOR AP
PRIOR AP
PRIOR FI
PRIOR FI
PRIOR FI
PRIOR AI
PRIOR FI
PRIOR FI
PRIOR FI
PRIOR FI
PRIOR FI
PRIOR FI
PRIOR AI
PRIOR FI
PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1377
TYPE: DNA
ORGANISM: Homo 9
5-09-944-896-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OR APPLICATION NUMBER: PCT/US00/04414
OR FILING DATE: February 22, 2000
OR APPLICATION NUMBER: PCT/US00/05414
OR FILING DATE: February 22, 2000
OR APPLICATION NUMBER: PCT/US00/0541
OR FILING DATE: March 2, 2000
OR APPLICATION NUMBER: PCT/US00/08439
OR FILING DATE: March 30, 2000
OR APPLICATION NUMBER: PCT/US00/214042
OR FILING DATE: May 22, 2000
OR APPLICATION NUMBER: PCT/US00/20710
OR APPLICATION NUMBER: PCT/US00/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R APPLICATION N
R FILING DATE:
R APPLICATION N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FULLING DATE: NO. US20020168715ALenu FILING DATE: NO. US20020168715ALenu APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NO 41
TH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION |
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/US99/30095 FILING DATE: December 16, 1999 APPLICATION NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PCT/US99/21090
FILING DATE: September 15, 1999
APPLICATION NUMBER: PCT/US99/28409
FILING DATE: NO. US20020168715Alember
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OF
                                                                                                            361
                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                             121
                             421
                                                                    361
                                                                                                                                                          301
                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGGTGACGGCAGGGCAGGGGCGCCTGGCCCGGGGAGAAGCGCCGGGGGCTGGAGCACCA
AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGCCTCGAGGGGACCCCCGGGCCCGCGAGGAGA
                                                               CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                            GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                        CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER: PCT/US99/28313
: No. US20020168715Alember
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER: PCT/US01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER: 09/254,311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER: 1999
NUMBER: PCT/US99/12252
Time 22, 1999
Time 22, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER: 09/218,517
December 22, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       February 28,
OS: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1377;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /06520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                           480
                                                                 420
                                                                                                            420
                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                          360
                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
```

```
δÃ
 몽
                Ş
                                 밁
                                                Q
                                                                    닭
                                                                                  Š
                                                                                                      밁
                                                                                                                     Š
                                                                                                                                        밁
                                                                                                                                                        Ş
                                                                                                                                                                         밁
                                                                                                                                                                                         δõ
                                                                                                                                                                                                            맑
                                                                                                                                                                                                                        δõ
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                    δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            吊
1321
                                                                                                       1141
                                                                                                                       1141
                                                                                                                                                                           1021
                                                                     1201
                                                                                      1201
                                                                                                                                         1081
                                                                                                                                                                                            1021
                                                                                                                                                                                                            961
                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                         GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                  CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                          CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                 CTCTGCTTCTCTGGATCCTCCCACCCCCTCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAGA
                                                                     GCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                         GCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                             CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                               CGACCGCGTGCTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCGGGACCCGCGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGA 480
                                                                                                                                                         1140
                                                   1320
                                                                     1260
                                                                                                       1200
                                                                                                                       1200
                                                                                                                                         1140
                                                                                                                                                                          1080
                                                                                                                                                                                           1080
                                                                                                                                                                                                            1020
                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
```

RESULT 4

US-09-944-944-41
; Sequence 41. Application US/09944944
; Patent No. US20020173463A1
; FAPLICANT: Baker, Kevin
; APPLICANT: Botstein, David
; APPLICANT: Eaton, Dan
; APPLICANT: Ferrara, Mapoleone
; APPLICANT: Filvaroff, Ellen

```
APPLICANT: Roy, Margaret
APPLICANT: Tumas, Daniel
APPLICANT: Wood, William
TITLE OF INVENTION: SECRETED AI
TITLE OF INVENTION: ACIDS ENCE
FILE REFERENCE: P2548P1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/944,944
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
OR FILING DATE: June 22, 1999
OR APPLICATION NUMBER: PCT/US99/21090
OR FILING DATE: September 15, 1999
OR PILICATION NUMBER: PCT/US99/28409
OR FILING DATE: NO. US20020173463Alember 30
OR APPLICATION NUMBER: PCT/US99/28313
OR FILING DATE: NO. US20020173463Alember 30
OR APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OR FILING DATE: February 9, 1998
OR APPLICATION NUMBER: 60/074,092
OR FILING DATE: February 9, 1998
OR APPLICATION NUMBER: 60/075,945
OR FILING DATE: February 25, 1998
OR APPLICATION NUMBER: 60/112,859
OR FILING DATE: December 16, 1998
OR APPLICATION NUMBER: 60/113,296
OR APPLICATION NUMBER: 60/146,222
OR FILING DATE: December 22, 1998
OR APPLICATION NUMBER: 60/146,222
OR FILING DATE: July 28, 1999
OR FILING DATE: July 28, 1999
OR FILING DATE: July 28, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R PELLICATION NUMBER: 60/069,694
R FILING DATE: December 16, 1997
R APPLICATION NUMBER: 60/069,702
PR APPLICATION NUMBER: 60/069,702
PR APPLICATION NUMBER: 60/069,870
PR APPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: December 22, 1370
APPLICATION NUMBER: 60/146,222
FILING DATE: July 28, 1999
APPLICATION NUMBER: PCT/US98/19330
APPLICATION NUMBER: PCT/US98/19330
                                                                                                                                                                                           FILING DATE: December 22, 1998
APPLICATION NUMBER: 09/254,311
FILING DATE: March 3, 1999
APPLICATION NUMBER: PCT/US99/12252
FILING DATE: June 22, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/067,411
FILING DATE: December 3, 1997
APPLICATION NUMBER: 60/069,334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: January
APPLICATION NUMBER: (
FILING DATE: February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: Decembe APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 0
                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09,
                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US98/25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/070,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: Decembe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Grimaldi, Christopher Gurney, Austin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gerritsen, Mary
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            er 17, 15, 160/069,873 17, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               per 11, 1997
60/069,278
per 11, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/074,086
ry 9, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       er 11, 199,
60/069335
                                                                                                                                                                                                                                                                                                                                ,09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  er 12, 1997
60/069,696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60/069,425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ED AND TRANSMEMBRANE ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                             16, 1
9/218,
                                                                                                                                                                                                                                                                                                                                                              , 1998
, 1998
, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           )/068,017
18, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3, 1997
                              30,
                                                                                  30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; LENGTH: 1377
; TYPE: DNA
; ORGANISM: HOMO :
US-09-944-944-41
                                                                                                              맑
                                                                                                                                                  δÃ
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF S
SEQ ID NO 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION
                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                          601
                                                                                                              541
                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \vdash
                                                                                                           CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                          GCCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                      AGGCGAGGGCGGGAGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTGCCGGGCCGCGATGGCCGCGACGGCGCGCGCGCGCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCCTCTGCCCGGGGACCCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGACTGCGAGAGGACCCCGGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGGTGACGGCAGGGCAGGGGGCCCTGGCCGGGGGAGAAGCGCGGGGGCCTGGAGCACCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                       GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCCCCGGGGCCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGGGTGACGGCAGGGGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                             AGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ħ
```

```
OR FILING DATE: MATCh 2, 2000
OR APPLICATION NUMBER: PCT/USOO/08439
OR FILING DATE: MATCh 30, 2000
OR APPLICATION NUMBER: PCT/USOO/14042
OR FILING DATE: MAy 22, 2000
OR APPLICATION NUMBER: PCT/USOO/20710
OR APPLICATION NUMBER: PCT/USOO/32678
OR APPLICATION NUMBER: PCT/USOO/32678
                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: February APPLICATION NUMBER: PC FILING DATE: February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: December 16, 199
APPLICATION NUMBER: PCT/US00,
FILING DATE: February 11, 200
                                                                                                                                                                                             FILING DATE: December 1, 200 APPLICATION NUMBER: PCT/US01 FILING DATE: February 28, 20
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PO
100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                             NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER:
                                                                                                                                                                           February
OS: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   December1,
                                                                                                                                                                                                                                                                                                                                                                                                             PCT/US00/05841
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCT/US99/30095
Score 1377;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                 /06520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /03565
                                          DB
                                    Length
```

Indels

0;

60

480

540

420

360 360 300 240

180 180

60

0

120 180 180 240

240

```
RESULT 5
US-09-944-907-41
; Sequence 41, Application US/09944907
; Publication No. US20020198147A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                     δõ
                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                           γQ
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ρy
                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                            APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
TITLE OF IN
TITLE OF IN
                                                                                                                                         APPLICANT:
                                                                                                                                                          APPLICANT: Baker,
                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
INVENTION: SECRETED AND TRANSMEMBRANE INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                   Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
Napier, Mary
Roy, Margaret
                                                                                                  Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
                                                                                                                                                                                                                                   GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                    GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCAAGCCAGCCTCGCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                       CTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCCTTTTCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                         GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                     Wood, William
                                                                                                                                Ferrara, Napoleone
                                                                                                                                           Eaton, Dan
                                                                                                                                                  Botstein, David
                              Tumas,Daniel
                                                                                                                                                           Kevin
          POLYPEPTIDES
           AND
          NUCLEIC
                                                                                                                                                                                                                                   1377
                                                                                                                                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                         В
                                                                                                          Š
                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                  밁
                                Š
                                                      밁
                                                                    δõ
                                                                                                                              밁
                                                                                                                                             Š
                                                                                                                                                                                  δð
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-944-907-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; NUMBER OF SEQ ID NOS: 1
SEQ ID NO 41
; LENGTH: 1377
; TYPE: DNA
; ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: P2548P1C1
CURRENT APPLICATION NUMBER: US/09/944,
CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
NUMBER OF SEQ ID NOS: 120
                                                                                           661
                                                                                                                                                601
                                                                                                                                                                   541
                                                                                                                                                                                    541
                                                                                                                                                                                                       481
                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                              181
                   781
                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                           CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCGGGGCCACCATGGCAGCCAGGG
CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                     CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                CGACCGCGTGCTGGTGAACGAGCAGGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                        CGACCGCGTGCTGGAGCAGCAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                  CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                 CTTGCCGGGCCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAAGAGAA
                                                                                                                                                                                                                                                                                                                      CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                          CGTCCTGCTGCTCCTGGGCCTGGCCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                              GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                       GGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1377;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
```

300 300 360

360

900

840

720 780

780

420 420 480 480 540 540 560 660

Query Match 100.0%; Score 1377; DB 9; Length 1377; Best Local Similarity 100.0%; Pred. No. 0;		; PRIOR APPLICATION NUMBER: 09/866,028 ; PRIOR FILING DATE: 2001-05-25 ; NUMBER OF SEQ ID NOS: 120 ; SEQ ID NO 41	NCODING THE SAME US/09/944,929 . B-31	; APPLICANT: Roy, Margaret ; APPLICANT: Tumas, Daniel ; APPLICANT: WOOd, William ; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC	; APPLICANT: Gurney, Austin ; APPLICANT: Hillan, Kenneth ; APPLICANT: Nijavin, Ivar ; APPLICANT: Napler, Mary			; Sequence 41, Application US/09944929 ; Publication No. US20020197612A1 ; GENERAL INFORMATION: ; APPLICANT: Baker, Keyin	RESULT 6 US-09-944-929-41	Qy 1321 GATCACTCAATAAACCTAAGAACCCTCATAAAAAAAAAA	Qy 1261 CTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTGCTGCGGCCGCCCTTTTCTCAGA 1320	Qy 1201 GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC 1260	Qy 1141 GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA 1200	OY 1081 GCACTCTCCGTCCTGCTGCTGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG 1140	QY 1021 GGTCATCCAGGAGGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080	Qy 961 CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020	Qy 901 CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG 960	841
Дb	Qу	Дb	Qу	Qy Db	Qy Db	Qy Db	Qy Db	Qy	B &	g d g	D 5	9 4	D Dy	g 4	D 5		dg b	Matche Qy
1021 GGTCATCCAGGAGGGCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080 		901 CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG 960		781 GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGGCTGAGGACCAAGT 840	721 GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTT	661 CCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA 720	601 CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG 660 	541 CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT 600	481 GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGCGATCCGC 540			301 CASCLECTECTECTECTECTECTECTECTECTECTECTECTECTE	CGTCCTGCTGCTCCTGGGCCTGGGGCGCCGCCTCGCCCCCC	GGGACTGCGAGAAGGACCCCGGCGTCCGGGCTCCCGGGGGCCATGAGGCCACTCCT GGGACTGCGAGAGGACCCCGGGCGTCCGGGCTCCCGGGGCCATGAGGCCACTCCT GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT				s 1377 1

60/062814

```
FILE REFERENCE
CURRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/049911
PRIOR FILING DATE: 1997-06-18
PRIOR FILING DATE: 1997-06-18
PRIOR APPLICATION NUMBER: 60/059913
PRIOR APPLICATION NUMBER: 60/059113
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/05912
PRIOR APPLICATION NUMBER: 60/05912
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-18
PRIOR APPLICATION NUMBER: 60/059263
PRIOR APPLICATION NUMBER: 60/059352
PRIOR APPLICATION NUMBER: 60/059352
PRIOR APPLICATION NUMBER: 60/059352
PRIOR APPLICATION NUMBER: 60/05988
PRIOR FILING DATE: 1997-09-19
PRIOR APPLICATION NUMBER: 60/059836
PRIOR APPLICATION NUMBER: 60/05285
PRIOR APPLICATION NUMBER: 60/05285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
US-10-028-072-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Baker, Revin P.
APPLICANT: Beresini, Mauree
APPLICANT: Berorge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellaen
APPLICANT: Go, Wei-Qiang
APPLICANT: Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 361, Applic Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
TITLE OF IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCACTCTCCGTCCTGCTGCCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCCTGTGCCAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gerritsen, Mary E. Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Godowski, Paul J. Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Watanabe, Colin K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wood,William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/10028072 o. US20030004311A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                                                                          PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/1
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 1997-11-12
PRIOR APPLICATION NUMBER: 60/065846
PRIOR FILING DATE: 1997-11-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OR APPLICATION NUMBER: 60/063329
OR FILING DATE: 1997-10-27
OR APPLICATION NUMBER: 60/063550
OR FILING DATE: 1997-10-28
OR APPLICATION NUMBER: 60/063561
OR FILING DATE: 1997-10-28
OR APPLICATION NUMBER: 60/063704
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/063733
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/063733
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/063733
OR FILING DATE: 1998-02-09
OR APPLICATION NUMBER: 60/077791
OR FILING DATE: 1998-03-12
OR APPLICATION NUMBER: 60/078910
OR FILING DATE: 1998-03-20
OR APPLICATION NUMBER: 60/079294
OR FILING DATE: 1998-03-25
OR APPLICATION NUMBER: 60/079663
OR APPLICATION NUMBER: 60/079728
OR APPLICATION NUMBER: 60/079728
OR APPLICATION NUMBER: 60/079728
OR FILING DATE: 1998-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DR APPLICATION NUMBER: 60/066364
DR FILING DATE: 1997-11-21
DR PAPPLICATION NUMBER: 60/066453
DR FILING DATE: 1997-11-24
DR APPLICATION NUMBER: 60/066511
DR FILING DATE: 1997-11-24
DR APPLICATION NUMBER: 60/066770
DR FILING DATE: 1997-11-24
DR FILING DATE: 1997-11-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/063755
FILING DATE: 1997-10-17
APPLICATION NUMBER: 60/064248
FILING DATE: 1997-11-03
APPLICATION NUMBER: 60/064809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/063735
FILING DATE: 1997-10-29
APPLICATION NUMBER: 60/063738
FILING DATE: 1997-10-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1997-10-24
APPLICATION NUMBER: 60/063082
FILING DATE: 1997-10-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/062816 FILING DATE: 1997-10-24 APPLICATION NUMBER: 60/063045
                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/073612
FILING TON NUMBER: 1998-02-04
APPLICATION NUMBER: 60/074086
FILING DATE: 1998-02-09
APPLICATION NUMBER: 60/074092
                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/
FILING DATE: 1997-12-16
APPLICATION NUMBER: 60/
FILING DATE: 1998-01-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/069334 FILING DATE: 1997-12-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
APPLICATION 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/069212 FILING DATE: 1997-12-11 APPLICATION NUMBER: 60/069278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/063127
FILING DATE: 1997-10-24
APPLICATION NUMBER: 60/063327
FILING DATE: 1997-10-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DATE: 1997-10-24
                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER: 60/069694
: 1997-12-16
                                                                                                                                                                                                                                                                                                                                                                                 NUMBER: 60/072320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER: 60/062287
```

1997-12-11

PRIOR

OR APPLICATION NUMBER: 60/080165
OR FILING DATE: 1998-03-31
OR APPLICATION NUMBER: 60/081203
OR APPLICATION NUMBER: 60/081209
OR APPLICATION NUMBER: 60/081695
OR FILING DATE: 1998-04-19
OR APPLICATION NUMBER: 60/081817
OR APPLICATION NUMBER: 60/081818
OR FILING DATE: 1998-04-15
OR APPLICATION NUMBER: 60/08299
OR FILING DATE: 1998-04-29
OR APPLICATION NUMBER: 60/083322
OR FILING DATE: 1998-04-29
OR APPLICATION NUMBER: 60/083545
OR APPLICATION NUMBER: 60/084600
OR FILING DATE: 1998-05-07
OR APPLICATION NUMBER: 60/084627
OR APPLICATION NUMBER: 60/085149
OR APPLICATION NUMBER: 60/085149
OR APPLICATION NUMBER: 60/085149
OR APPLICATION NUMBER: 60/085149
OR APPLICATION NUMBER: 60/08533
OR FILING DATE: 1998-05-07
OR APPLICATION NUMBER: 60/08533
OR FILING DATE: 1998-05-13
OR APPLICATION NUMBER: 60/08533
OR APPLICATION NUMBER: 60/08533
OR FILING DATE: 1998-05-15
OR APPLICATION NUMBER: 60/08579
OR FILING DATE: 1998-05-15
OR APPLICATION NUMBER: 60/08579
OR FILING DATE: 1998-05-15
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-16
OR APPLICATION NUMBER: 60/086414
OR APPLICATION NUMBER: 60/086414
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-12
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-02
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-08
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-08
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-08
OR APPLICATION NUMBER: 60/086430
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-08
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-08
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-08
OR APPLICATION NUMBER: 60/086430
OR APPLICATION NUMBER: 60/086730
OR APPLICATION NUMBER: 60/086430

```
$ B
밁
        δÃ
                    밁
                            δ
                                         밁
                                                                      δ
                                                                                   뫄
                                                                                          Ş
                                                                                                     뮵
                                                                                                               Qy
                                                                                                                             밁
                                                                                                                                    Qy
                                                                                                                                              밁
                                                                                                                                                         Ş
                                                                                                                                                                      밁
                                                                                                                                                                             Ş
                                                                                                                                                                                         밁
                                                                                                                                                                                                  ρ
                                                                                                                                                                                                            В
                                                                                                                                                                                                                       δã
                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                     δõ
                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                         Query Match 100
Best Local Similarity 100
Matches 1377; Conservative
                                                                                                                                                                                                                                                                                                                                                               PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1998-07-01
APPLICATION NUMBER: 60/091519
FILING DATE: 1998-07-02
APPLICATION NUMBER: 60/091982
FILING DATE: 1998-07-07
                                                                                                                                                                                                                                  241
          901
                    841
                              841
                                         781
                                                    781
                                                             721
                                                                         721
                                                                                   661
                                                                                              661
                                                                                                        601
                                                                                                                  601
                                                                                                                             541
                                                                                                                                       541
                                                                                                                                                 481
                                                                                                                                                            481
                                                                                                                                                                       421
                                                                                                                                                                                421
                                                                                                                                                                                           361
                                                                                                                                                                                                     361
                                                                                                                                                                                                               301
                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                           61
GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                             CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                            CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                 GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                      CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                   CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                TGGGGTGACGGCAGGGCAGGGGCCCCTGGCCCGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                    .0%;
                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                         Score 1377;
Pred. No. 0;
); Mismatches
                                                                                                                                                                                                                                                                                                                                                    BB
                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                           Gaps
         960
                                                  840
                                                                       780
                                                                                            720
                    900
                              900
                                         840
                                                            780
                                                                                  720
                                                                                                       660
                                                                                                                  660
                                                                                                                             600
                                                                                                                                      600
                                                                                                                                                 540
                                                                                                                                                          540
                                                                                                                                                                      480
                                                                                                                                                                              480
                                                                                                                                                                                          420
                                                                                                                                                                                                    420
                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                               360
                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                               60
```

PRIOR

PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR

OR APPLICATION NUMBER: 60/089599
OR FILING DATE: 1998-06-17
OR APPLICATION NUMBER: 60/089907
OR FILING DATE: 1998-06-18
OR APPLICATION NUMBER: 60/089947
OR FILING DATE: 1998-06-19
OR APPLICATION NUMBER: 60/090349
OR FILING DATE: 1998-06-23
OR APPLICATION NUMBER: 60/090429
OR FILING DATE: 1998-06-24
OR APPLICATION NUMBER: 60/090445
OR APPLICATION NUMBER: 60/09045
OR APPLICATION NUMBER: 60/090538
OR APPLICATION NUMBER: 60/090538
OR APPLICATION NUMBER: 60/090863

1081 GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGC 1141 GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA	Qγ DB	Db 1 GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGGAGCCAGGAGCGAACCAGGAC 60
1081 GCACTCTCCGTCCTGCTGCCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG	e oy	1 GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAGGGAAGCGAACCAGGAC 60
	ДĎ	Query Match 100.0%; Score 1377; DB 9; Length 1377; Best Local Similarity 100.0%; Pred. No. 0; Matches 1377; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
961 CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGGGTGAGAACAACCA 1021 GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA	Ov Db	; ORGANISM: Homo Sapien US-10-121-049-361
961 CCCACTGCAAAGTGAGCTCATGCTCTCTCTCTAGAAGGAGGGTGTGAGGCTGAG	Qy	LENGTH: 1377
901 CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG	Qy	; CURRENT FILING DATE: 2002-04-12 ; Prior Application removed - See File Wrapper or Palm ; NUMBER OF SEQ ID NOS: 550 . SEO ID NO 361
641 GIGGIGCAGGIGGGIGGGIGACIACAITGGCAICIAIGCAGCAICAAGACAGACAG 	д . 2	FERENCE: P3330F APPLICATION NO
	Oy Db	X
721 GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTT	Qy	; APPLICANT: Gurney, Austin L. ; APPLICANT: Sherwood, Steven ; APPLICANT: Smith, Victoria ; APPLICANT: Stewart, Timothy A.
661 CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA	Qy	
601 CGACCGCGTGCTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG	Qy Db	
541 CTTCAGCGCCAAGCGCTCCGAAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT	Qy	; Sequence 361, Application US/10121049 ; Publication No. US20030022239A1 ; GENERAL INFORMATION: ; APPLICANT: Baker, Kevin P.
481 GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGGAGTGCTCGGTGCCTCCGCGATCCGC	D Qy	RESULT 8 US-10-121-049-361
421 AGCGAAGGCGGAAGGCCGGGACTGCCGGGACCTCCAGGGGACCCCGGGCCGCGAGAAGA	Qy	Qy 1321 GATCACTCAATAAACCTAAGAACCCTCATAAAAAAAAAA
	рь	QY 1261 CTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCTGGGGCCGGCC
2 2 2	D 5	OY 1201 GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC 1260
	S & &	OY 1141 GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCCAA 1200
	Qy Db	QY 1081 GCACTCTCCGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG 1140 1081 GCACTCTCCGTCCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG 1140
	ДУ	QY 1021 GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
	Qy Db	QY 961 CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020

QY 241 CGTCCTGCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC 300	Qy 181 GGGACTGCGAGAGGACCCCGGCGTCCGGGGCTCCCAGCGCTATGAGGCCACTCCT 240	OY 121 CCAACTGGAGGGTCCGGAGTAGCGACCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG 180	Qy 61 TGGGGTGACGGCAGGGCAGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA 120	1 GACTAGTICTCTTGGAGTCTGGGAGGAGGAAAGCGGAAGCGGCAGGAACCAGGAC 60	Query Match 100.0%; Score 1377; DB 9; Length 1377; Best Local Similarity 100.0%; Pred. No. 0; Matches 1377; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	LENGTH: TYPE: DN ORGANISM IS-10-123-90	co.	INVENTION: SINVENTION: SINVENT	APPLICANT: APPLICANT: APPLICANT: APPLICANT:	APPLICANT: Gurney, Austin L. APPLICANT: Sherwood, Steven APPLICANT: Smith, Victoria APPLICANT: Stewart, Timothy A.	; APPLICANT: Gao,Wei-Qiang ; APPLICANT: Gerritsen,Mary E. ; APPLICANT: Goddard,Audrey ; APPLICANT: Godowski,Paul J.		; Sequence 361, Application US/10123904 ; Publication No. US20030022328A1 ; GENERAL INFORMATION: ; APPLICANT: Baker Kevin P.	RESULT 9 US-10-123-904-361	Qy 1321 GATCACTCAATAAACCTAAGAACCCTCATAAAAAAAAAA	Qy 1261 CTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTGCGGGCCGGCC	Db 1201 GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGGGGG	1141 GCAGCATGGGCCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
Оу	Db Db		рь		Qy Db	Qy Db	Qy Db	Qy Db	Qy Db	Qy . Db	Qy Db	Qy Db	Qy Db	Qy Db	рр		ט ט	Qy Db
1321 GATCACTCAATAAACCTAAGAACCCTCATAAAAAAAAAA	- TOTGCTTCTCTGGATCCTCCCCACCCCTCCTGCTCCTGGGCCGGCC	GTGTAAGTCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCCTGGTC	GCAGCATGGGCAGTGCTGGATTTCTGCCCAAGACCAGAGGATGTGCTGCTGGTGGCAGA	GCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG 1	1021 GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080 	961 CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020 	901 CACCITCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG 960 	841 GTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAGAC	781 GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAAGCTGGAAGCCTGAGGACCAAGT 840	721 GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTT	661 CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA 720	601 CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG 660 	541 CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT 600	481 GGCGGGACCCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC 540	421 AGGCGAGGGCGGGACCGGGACTGCCGGGACCCGGGCCCGGAGGAGA 480		301 CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCAGGAGA A20	241 CGTCCTGCTGCTCCTGGGCCTGGCGGCCGGCCTCCACTGGACGACAACAAGATCCC 300 301 CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGGCCGGC

```
; LENGTH: 1377
; TYPE: DNA
; ORGANISM: HOMO :
US-10-140-470-361
                                                                                                                                                                                  Ş
                                                                                                                       ₽
Q
                                                                                                                                                              멍
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                               QΥ
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
US-10-140-470-361
                   δÃ
                                                          Ş
                                                                                    B 5
                                                                                                                                                                                                                                                                                                             δ
     밁
                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/140,470
CURRENT FILING DATE: 2002-05-06
Prior Application removed - See Palm or F:
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 361, Application US/10140470 Publication No. US20030022331A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C160
                                           361
                                                                                    301
                                                                                                      301
                                                                                                                                                                                                            121
                       421
                                                               361
                                                                                                                              241
                                                                                                                                                241
                                                                                                                                                                    181
                                                                                                                                                                                         181
                                                                                                                                                                                                                                121
     421
                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei-Qlang
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sharwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
                                                                                                                                                                                                                                                                                          CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
   AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                          CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                          GGGACTGCGAGAGGACCCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                   TGGGGTGACGGCAGGGGGGGGGCGCCTGGCCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                            TGGGGTGACGGCAGGGCAGGGGGCCCCCGGCGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baker, Kevin
                                                                                                                                                                    GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                            CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Watanabe,Colin K
Wood,William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                     100.0%; ilarity 100.0%; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                      Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ש
                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                              Score 1377;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                       or File Wrapper
                                                                                                                                                                                                                                                                                                                                                        DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POLYPEPTIDES AND
                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                        9;
                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUCLEIC
                                                                                                                                                                                                                                                                                                                                    Gaps
                       480
                                           420
                                                                420
                                                                                    360
                                                                                                      360
                                                                                                                                                                                      240
                                                                                                                                                                                                            180
                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                            60
                                                                                                                            300
                                                                                                                                                300
                                                                                                                                                                   240
RESULT 11

US-10-175-746-361
; Sequence 361, Application
; Publication No. US2003002
; Publication No. US2003002
; GENERAL INFORMATION:
 APPLICANT: Beresini, Mau
; APPLICANT: DeFoorge, Laur
; APPLICANT: Desnoyers, Lu
; APPLICANT: Filvaroff, El
; APPLICANT: Gao, Wei-Qian
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            νQ
                                                                                                                                                                            DЬ
                                                                                                                                                                                              Š
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                               δð
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                          γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
```

DeForge, Laura Desnoyers, Luc Filvaroff, Ellen Gao, Wei-Qiang

Beresini, Maureen

Application US/10175746 b. US20030027270A1 ъ.

Gerritsen, Mary

```
1321
                                                                                         1141
                                                                                                                        1081
                                                                                                                                                      1021
                                                                          1201
                                                                                                                                       1081
                                                                                                                                                                     1021
                                                                                                                                                                                   961
                                                                                                                                                                                                  961
                                                                                                                                                                                                                 901
                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                          781
GCACTCTCCGTCCTGCTGCCAGGAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                           CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGGCTGACAACCA
                                                                                                                                                                                                               GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCCTGAGGACCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                    GCCGGGACCCGCGGGCCCACCGGCCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                            GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                         CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                     GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                  CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                        CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                               1320
                                                                                          1200
                                                                                                                                                      1080
                                             1320
                                                                                                                                                                    1080
                                                                                                                                                                                  1020
                                                                                                                                                                                                  1020
                                                            1260
                                                                           1260
                                                                                                        1200
                                                                                                                        1140
                                                                                                                                     1140
                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                 540
```

```
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Sherwood, Steven
APPLICANT: Sherwood, Steven
APPLICANT: Sherwood, Steven
APPLICANT: Stewart, Timothy A.
APPLICANT: Stewart, Timothy A.
APPLICANT: Watanabe, Colin K
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Wood, William
APPLICANT: Dang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C353
CURRENT APPLICATION NUMBER: US/10/175,746
CURRENT FILING DATE: 2002-06-19
Defor anniforation removed - See File Wrapper of Palm
                  â
                                                ₽
                                                                   5
                                                                                              밁
                                                                                                                          Š
                                                                                                                                                             В
                                                                                                                                                                              δ
                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: DNA
; ORGANISM: HOMO
US-10-175-746-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Prior Application removed -
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                      481
                                                                          601
                                                                                                     541
                                                                                                                                 541
                                                                                                                                                             481
                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1377;
                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                             CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                   CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                        GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                 AGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGGAGGAGA
                                                                                                                                                                                                                                                                                      CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGGCGCCCCGGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                          CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                      CGTCCTGCTGCTCCTGGGCCTGGCCGGCCTCGCCCCCCCTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTAGTTCTCTTGGAGTCTGGGAGGGAGGGAAAGCGGGAGCCGGCAGGACCAGGAC
                                                                                                                                                           GCCGGGACCCGCGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                         CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCCCCGGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                               CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                      CGTCCTGCTGCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGACTGCGAGAGGACCCCGGCGTCCGGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         See File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1377;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                660
                                                                        660
                                                                                                    600
                                                                                                                                600
                                                                                                                                                                                      540
                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
APPLICANT: Gurney, Austin I.
APPLICANT: Sherwood, Steven
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Stewart, Timothy A.
APPLICANT: Watanabe, Colin K
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE PO:
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C382
CURRENT APPLICATION NUMBER: US/10/176,918
                                                                                                                                                                                                                                                                                                                                          RESULT 12
US-10-176-918-361
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                      APPLICANT: Baker, Kevin P
APPLICANT: Beresini, Mau
APPLICANT: DeForge, Laur
APPLICANT: Desnoyers, Lu
APPLICANT: Gao, Wei-Gian
APPLICANT: Gao, Wei-Gian
APPLICANT: Goddard, Audr
APPLICANT: Goddard, Judar
APPLICANT: Goddowski, Pau
                                                                                                                                                                                                                                                                                                   GENERAL
                                                                                                                                                                                                                                                                                                               Sequence 361, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                    INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                          Gao, Wei-Qiang
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                  GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCCACGGTGGGGTGCTCTCTTTCCTGGTC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCCACGGTGGGGTGCTCTTCCTGGTC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGCAA. 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTTGAGGCCTGAGGCCTAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                Filvaroff, Ellen
                                                                                                                                                                                                                                          DeForge, Laura
Desnoyers, Luc
                                                                                                                                                                                                                                                                         Beresini, Maureen
                                                                                                                                                                                                                                                                                                                Application US/10176918 to. US20030027275A1
                                                                                                                                                                                                                                                                                      ָי
                                                POLYPEPTIDES
```

1020

960 960 900 900 840 840 780 780

AND

```
δ
                                                                                                                                                                                              밁
                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: DNA
; ORGANISM: Homo
US-10-176-918-361
               δõ
                                  В
                                                     Ş
                                                                             밁
                                                                                          δÃ
                                                                                                                  밁
                                                                                                                                   Ş
                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                              ΩV
                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prior Application I
NUMBER OF SEQ ID NOS:
SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
mes 1377; Conserv
                                      781
                                                          781
                                                                             721
                                                                                             721
                                                                                                                   661
                                                                                                                                      661
                                                                                                                                                         601
                                                                                                                                                                            601
                                                                                                                                                                                               541
                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAGCGGAGCGGAGCGAACCAGGAC
CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                   CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                        CTTCAGCGCCAAGCGCTCCGAAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                               GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                         CAGCCTCTGCCCÓGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                            GGGACTGCGAGAGGACCCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAGCGGAGCCGGCAGGGAGCCAACCAGGAC
                                                          GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAAGT
                                                                                                                   CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                         CGACCGCGTGCTGGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                               CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                    GGCGGGACCCGCGGGCCCACCGGGCCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                   CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGGTGACGGCAGGGCAGGGGCGCCCTGGCCGGGGAGAAGCGCGGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002-06-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1377;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         File Wrapper or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                   900
                                                                            780
                                                                                              780
                                                                                                                  720
                                                                                                                                      720
                                                                                                                                                         660
                                                                                                                                                                            660
                                                                                                                                                                                               600
                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                   240
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                  ORGANISM: Homo US-10-176-921-361
                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 13
US-10-176-921-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                    CURRENT APPLICATION UNABER: US/10/176,921
CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrapp
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
TYPE: DNA
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 361, Application No.
                 Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                   TITLE OF INVENTION: SECRETED AND TITLE OF INVENTION: ACIDS ENCODIFILE REFERENCE: P3330R1C288
                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                       Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                               Watanabe, Colin K
                                                                                                                                                                                                                               Smith, Victoria
Stewart, Timothy
                                                                                                                                                                                                                                                        Sherwood, Steven
                                                                                                                                                                                                                                                                                                              Gao, Wei-Qiang
                                                                                                                                                                                                                       Tumas, Daniel
                                                                                                                                                                                                                                                                                                     Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                           Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                    Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                 DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                           Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                            Application US/10176921 o. US20030027276A1
       Conservative
                                                                                                                                                                                       Zemin
                100.0%;
                                                                                                                                                             ENCODING THE SAME
       0;
                 Score
Pred.
       Mismatches
                                                                                                                  Wrapper
                 1377;
No. 0;
                           DΒ
                                                                                                                    ç
                                                                                                                                                                             POLYPEPTIDES
     0;
                                                                                                                    Palm
       Indels
                            Length
                                                                                                                                                                             AND
     0,
                                                                                                                                                                           NUCLEIC
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
     0;
```

Ş

GACTAGTTCTTTGGAGTCTGGGAGGAGGAGAGCGGAGCCGGCAGGGAGCGAACCAGGAC

```
1021
                                                                                                                                   841
                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                              961
                                                                               961
                                                                                                 901
                                                                                                                  901
                                                                                                                                                   841
                                                                                                                                                                     781
                                                                                                                                                                                    781
                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                          GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                               CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                  GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
GCACTCTCCGTCCTGCTGCTGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                            CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                                                              GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTCGGGGGGTG
                                                                                                                                                                                                                                                  CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                       CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                         CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCGGGGCCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCGGGGAGAAGCGCCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                             GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                              AGGCGAGGGCGGGAGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                      AGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                               CGTCCTGCTGCTGGGGCCTGGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGGTGACGGCAGGGGGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
         1140
                                           1080
                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                 960
                                                                                                 960
                                                                                                                                  900
                                                                                                                                                   900
                                                                                                                                                                                                     780
                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
뮍
            δÃ
                                  В
                                                Q
                                                                     ₽
                                                                                    Q
                                                                                                       밁
                                                                                                                    δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δð.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                         Query Match
Best Local S
Matches 1377
                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                     TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
181
                  181
                                   121
                                                    121
                                                                      61
                                                                                       61
                                                                                                        \vdash
                                                                                                                        ۲
```

Db

δ A

9 pb

밁

밁

δ

Ĵ

40 40 A0 A0 A0

P Oy Db

```
; ORGANISM: Homo US-10-137-865-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
US-10-137-865-361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Baker, Ke
APPLICANT: Beresin
                                                                                                                                                                                                                                                                                                             SEQ ID NO 361
LENGTH: 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 361, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C154
CURRENT APPLICATION NUMBER: US/10/137,865
CURRENT FILING DATE: 2002-05-03
                                                                                                                                                                                                                                                                                                                                      Prior Application removed - NUMBER OF SEQ ID NOS: 550
                                                                                                                                                                                                                   Local Similarity
nes 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
TGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA 120
                                                                                                                                                                             GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGCTGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                             Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Stewart, Timothy A. Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhang, Zemin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/10137865
o. US20030032155A1
                                                                                                                                                                                                                   100.0%;
llarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                    Sapier
                                                                                                                                                                                                                                                                                                                                                       See
                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                  Score 1377;
Pred. No. 0;
); Mismatches
                                                                                                                                                                                                                                                                                                                                                       Palm
                                                                                                                                                                                                                                                                                                                                                      or,
                                                                                                                                                                                                                                                                                                                                                      File
                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                    Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                      POLYPEPTIDES
                                                                                                                                                                                                                                               9;
                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       AND
                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                       NUCLEIC
                                                                                                                                                                                                                    Gaps
                           240
                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1200
 240
                                                                                                                                                                 60
                                                                                                                                                                                         60
                                                                                                                                                                                                                    0
```

δÃ

밁 δÃ 밁 γ

δÃ

```
В
В
                                                                                     당 성
                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
   밁
                 Qy
                                                                                     1141
                                                                                                        1141
                                                                                                                                 1081
                                                                                                                                                                          1021
                                                                                                                                                    1081
                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
GCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                   GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                             CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGACGACCA
                                                                                                                                                                                                                                                                      CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                   GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                      GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTCGGGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGGTGCCTGGGGTCTACTACCTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                  CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                            CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGACCGCGTGCTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                         GGTCATCCAGGAGGGCTGGCCCCCCCGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                       1320
                                                                1260
                                                                                                        1200
                                                                                                                             1140
                                                                                                                                                                                             1080
                                                                                                                                                                                                                  1020
                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                           1260
                                                                                                                                                    1140
                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
```

δÃ ₽ Š 밁 δÃ 밁 Qγ 뮵

δ

Qy. Db

δ D δ 밁 Ş

밁 Ωy Ş 밁 δõ B

몽

```
밁
                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                       γQ
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
US-10-140-474-361
                                      δÃ
                                                                                   Ω
                                                                                                            В
                                                                                                                                  Š
                                                                                                                                                           B
                                                                                                                                                                             δõ
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                    B
                                                                   DЬ
                                                                                                                                                                                                                                                                                                                                                                                           US-10-140-474-361
                                                                                                                                                                                                                                                                                                                                                                                                              Prior Application removed -
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 361
LENGTH: 1377
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 361, Applic Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 1377; Best Local Similarity 100.0%; Pred. No. 0; Matches 1377; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Baker, K
APPLICANT: Beresi
APPLICANT: Desnoy
APPLICANT: Desnoy
APPLICANT: Filvar
APPLICANT: Gao, we
APPLICANT: Gao, we
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/140,474
CURRENT FILING DATE: 2002-05-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo
                       361
                                                                    301
                                                                                         301
                                                                                                                241
                                           361
                                                                                                                                                            181
                                                                                                                                                                                  181
                                                                                                                                                                                                         121
                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                 61 TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCCGGGGAGAAGCGCCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGACTGCGAGAGGACCCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                         AGGCGAGGCGGGAGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                 CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                              CAGCCTCTGCCCGGGCCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                CGTCCTGCTGCTGCGCCTGGCCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                            GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                     Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stewart, Timothy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumas,Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/10140474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US20030032156A1
                                                                                                                                                                                                                                                                                                                                                                                                       Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zemin
                                                                                                                                                                                                                                                                                                                                                                                                                                                               See
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                                               OF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               File
                                                                                                                                                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                       1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND
                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUCLEIC
                                                                                                                                                                                                                                                                                                                                               Gaps
 480
                                            420
                                                                                                                                                                                                                                                                            120
                                                                    360
                                                                                         360
                                                                                                                                                                                  240
                                                                                                                                                                                                         180
                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                         60
                       420
                                                                                                               300
                                                                                                                                      300
                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                0,
```

gb VQ	Дy	Оу	р Q ,	Д	Db dg	B 84	Db Qy	φφ	φ _Q	Db Qy	Qy Db	Db Qy	Qу	Db Qy	Db
1321 1321	1261	1201 1201	1141 1141	1081 1081	1021 1021	961 961	901 901	841 841	781 781	721	661 661	601	541 541	481 481	. 421
GATCACTCAATAAACCTAAGAACCCTCATAAAAAAAAAA	CTCTGCTTCTCTGGATCCTCCCCACCCCTCCTGCTCCTGGGGCCGGCC	GTGTAAGTCCCCCÁGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGŤC 1260 	GCAGCATGGGGCAGTGGGTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA 1200 	GCACTCTCCGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG 1140 	GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080 	CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020 	CACCITCICCGGATTICTGGIGTACICCGACIGGCACAGCICCCCAGICTITGCTIAGIG 960	GTGGGTGCAGGTGGGTGACTGACATTGGCATCTATGCCAGCATCAAGACAGAC	GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTTGAGGCCTGAGGACCAAGT 840	GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTT	CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTGTACCGGGCCAGCCTGCA 720	CGACCGCGTGCTGGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG 660	CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT 600	GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGATGCTCGGTGCCTCCGCGATCCGC 540	

Search completed: June 21, 2003, 12:47:20 Job time: 259 secs

Run

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Word size
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8::
                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-41
1377
1 gactagttctcttar
                                                                                                                                                                                                                                          Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OLIGO_NUC Gapop 60.0 , Gapext 60.0
  100.0
100.0
100.0
100.0
100.0
100.0
96.3
94.8
81.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       June 21, 2003, 11:27:14; Search time 367 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2185239 seqs, 1125999159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N_Geneseq_101002:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gactagttctcttggagtct...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1987.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1988.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1986.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1989.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1990.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1991.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1992.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1993.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1994.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1995.DAT:*
/SIDS2/gcgdata/geneseqyeneseqn-embl/NA1996.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1997.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001A.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001B.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1998.DAT:*
/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                         /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2002
                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                            DB
    22222222
                                                                                                                                                                                                                                            Ħ
AAX87258
AAX80052
AAD01241
AAA45907
AAA49560
AAS21424
AAC58626
AAX24684
AAF44970
                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .....aaaaaaaaaaaaaaaaaa 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (without alignments)
8449.596 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4370478
                                                                                                          cDNA clone encodin
Human PRO344 nucle
Human PRO344 prote
cDNA encoding nove
                                                                                                                                                                                                                                       Description
                        Human
                                                 Human
                                                                     Human
                                                                                                Human
                                       cDNA sequenc
PRO344 prote
  TANGO 253 co
                                                                                             PRO344 cDNA
RESULT 1
AAX867258
IID AAX86
XX AAX6
XX AAX6
XX AAX6
XX CDN#
XX PRO3
XX PRO3
XX PRO3
XX PRO3
XX PRO5
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRO344; UNQ303; cancer; tumour; diagnosis; therapy; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cDNA clone encoding human PRO344, amplified in tumour cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAX87258;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAX87258 standard; cDNA; 1377 BP
```

35	35	35	35	35	. 35	35	35	39	43	45	45	45	45	45	45	50	50	51	51	60	247	305	544	557	557	557	803	809	638	763	912	1068	1068	1068	1068
2.5		٠		٠		٠	٠	2.8	٠	ω. ω	ω . ω					٠	٠			٠	17.9	٠	39.5	٠	40.5	•	٠	٠	٠	٠	•	•	77.6	•	77.6
1263	1263	1263	729	729	729	729.	729	63	83	65	45	45	45	45	45	50	50	51	51	60	536	502	602	728	728	728	728	728	1082	764	3248	1338	1338	1338	1338
22	22	22	22	22	22	22	22	20	20	20	21	21	21	21	20	20	20	20	20	24	23	21	22	22	22	22	22	22	23	24	24	22	22	22	22
AAF45007	AAF45006	AAF44972	AAF45041	AAF45040	AAF45039	AAF45038	AAF44973	AAX24702	AAX24705	AAX24697	AAA49494	AAA46913	AAD01258	AAC58514	AAX80088	AAX24704	AAX24696	AAX24703	AAX24695	ABN40870	AAS76910	AAZ98154	AAH33447	AAF44996	AAF44995	AAF44994	AAF44997	AAF44971	AAS76911	AAS62228	AAL39624	AAF45001	4500	44	AAF44998
	secreted p	Murine TANGO 253 O		secreted		Murine secreted pr	Murine TANGO 253 c	primer		r primer	Ŗ	e used to	3	PRO344	PRO344	primer	primer		primer	<u>a</u>	ncoding nove	Human signal pepti	colon car	secreted	secreted	secreted	secreted p	n TANGO 253 O	encoding nov	sequence #	secreted	secreted pr	secreted	secreted	Human secreted pro

ALIGNMENTS

(first entry)

20-NOV-1998; 05-JAN-1998; 29-APR-1998; 22-MAY-1998; 05-JAN-1999; mat_peptide sig_peptide 15-JUL-1999 WO9935170-A2 sapiens 98US-0109304. 98US-0070440. 98US-0083500. 98US-0086414. 99WO-US00106 /*tag= k 272..955 /*tag= a 227..271 Location/Qualifiers 227..958 /*tag= a

```
Š
                        В
                                          δÃ
                                                                  밁
                                                                                    Ş
                                                                                                              В
                                                                                                                                Ş
                                                                                                                                                                          δÃ
                                                                                                                                                                                                    유 성
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      coding for human PRO344 (UNQ303) (see AAY06481). The clone was isolated from a feetal kidney library. Amplification of DNA40592 was observed in primary lung tumours and in primary colon tumours suggesting an association with tumour formation or growth. Antagonists (e.g. antibodies) directed against PRO344 may have utility in cancer therapy. The invention identifies 14 genes (see AAX87254-67) that are amplified in the genome of tumour cells. Such amplification is expected to be associated with overexpression of the gene product and to contribute to tumorigenesis. The encoded proteins (see AAY06477-90) may be useful targets for the diagnosis and/or treatment (including prevention) of certain cancers, and may act as predictors of the prognosis of tumour treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Roy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1377 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antibody against proteins expressed tumor diagnosis and treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Botstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-JUN-1998;
10-NOV-1998;
                                                                    421
                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ÍS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1999-430385/36.
DB; AAY06481.
                          481
                                                                                                               361
                                                                                                                                    361
                                                                                                                                                          301
                                                                                                                                                                                301
                                                                                                                                                                                                      241
                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the nucleotide sequence of cDNA clone DNA40592 (ATCC for human PRO344 (UNQ303) (see AAY06481). The clone of from a foetal kidney library. Amplification of DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Fig 9; 162pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENENTECH
                                                                                                                                                                                                                                                                                        CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                  GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                              AGGCGAGGGCGGGAGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCCGCGAGGAGA
                                                                                                                          CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCGCCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                         CAGCCTCTGCCCGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                      CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGGCCACCATGGCAGGG
                                                                                                                                                                                                               CGTCCTGCTGCTGGGCCTGGCCGGCCTCGCCCCCACTGGACGACAAGATCCC
                                                                                                                                                                                                                                              GGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                              TGGGGTGACGGCAGGGCAGGGGCCCCTGGCCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                           GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D, wood
                                                                                                              CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCCGGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                     CGTCCTGCTGCTCGTGGGGCCTGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                  AGGCGAGGGCGGGAGGGACTGCCGGGACCTCGAGGGGACCCCGGGGCCGGAGGAGA
                                                                                                                                                                                                                                                                                                                                     TGGGGTGACGGCAGGGCAGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
llarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0088742.
98US-0107783.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; 422 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1377;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     472 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     232 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neoplastic
                                                                                                                                                                                                                                                                                                                                                                                                                                               DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΚJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                               20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lawrence
                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cells,
                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DA;
                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
                                                                                                                                                                                                                                                                                                                                                          120
                                         540
                                                                 480
                                                                                       480
                                                                                                              420
                                                                                                                                   420
                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                         360
                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                          0
RESULT 2
AAX80052
ID AAX8
XX AAX8
AC AAX8
AC AAX8
AX 12-a
XX Huma
XX Huma
XX Huma
XX Huma
XX Homc
XX Homc
XX Homc
XX Homc
XX Homc
XX Homc
                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                    뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         닭
                                                                  Human;
                                                                                                             12-AUG-1999
```

```
1261
                                                                                                                 1201
                                                                                                                                         1141
                                                                                                                                                               1141
                                                                                                                                                                                     1081
                                                                                                                                                                                                                                   1021
  1321
                                                                     1261
                                                                                            1201
                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                             781
GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                    GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                                                                                                                                                                                                           CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGACGACGAAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGTGCCTGGGGTCTACTACCTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA 720
                                                                                            GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCCTGGTC
                                                                                                        CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                            CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                        CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                       CGACCGCGTGCTGATGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                               GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                               1200
                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
```

AAX80052 standard; CDNA; 1377

ВP

AAX80052

PRO344 nucleotide sequence

(first

entry)

secreted PRO RO protein; | protein; tr transmembrane tumour necrosis factor family; protein; inflammation TNF; disorder; cytokine; 88

Homo sapiens

540

```
11-DEC-1

PR 11-DEC-1

PR 11-DEC-1;

PR 12-DEC-19;

PR 16-DEC-199;

PR 16-DEC-1997;

PR 16-DEC-1997;

PR 17-DEC-1997;

PR 17-DEC-1997;

PR 18-DEC-1997;

PR 18-DEC-1997;

PR 19-DEC-1997;

PR 19-DEC-1998;

PR 19-
                                            g 69
                                                                                                  В
                                                                                                                               ρy
                                                                                                                                                            g.
                                                                                                                                                                                            Q
                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yuan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes nucleic acids encoding PRO secreted and transmembrane proteins used therapeutically. The PRO proteins have cytostatic, anti-inflammatory, anti-proliferative and immunosuppressive activity. The proteins and polynucleotides can be used in therapy, identification of homologues, raising antibodies and design of probes and primers. They can be used in a range of diseases related to proteins that they have homology with, e.g. a PRO protein having homology to complement proteins may be used in inflammatory responses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-FEB-1998;
03-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999-371118/31.
DB; AAY17827.
                                                                                                                                                                                                     181
                                               301
                                                                          301
                                                                                                          241
                                                                                                                                       241
                                                                                                                                                                     181
                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                               121
                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΚP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2;
                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENENTECH INC.
                                                                                                                                                                                                                               CCAACTGGAGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                          TGGGGTGACGGCAGGGCAGGGGCGCCTGGCCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                      CGTCCTGCTGCTGGGCCTGGCGGCCGGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                    GGGACTGCGAGAGGACCCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
              CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCGGGGGCTCCGGGAGAGAA
                                                              CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                     GGGACTGCGAGAGGACCCCGGCGTCCGGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1377
                                              CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                          CGTCCTGCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
 Chen
                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0069696.
97US-0069702.
97US-0069870.
97US-0069873.
97US-0068017.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-007440.
98US-0074086.
98US-0074092.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-0069335.
97US-0069425.
97US-0069694.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0075945
97US-0067411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  123pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P,
                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;
                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1377;
Pred. No. 0;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 proteins
                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           proteins
                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                           120
                                                                          360
                                                                                                         300
                                                                                                                                       300
                                                                                                                                                                  240
                                                                                                                                                                                                 240
                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                               180
RESULT 3
AAD01241
ID AAD0
XX
AC AAD0
XX
                                                                                                                                                                                  DЪ
                                                                                                                                                                                                             Ωy
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                         밁
                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                 AAD01241;
                                               AAD01241
                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                               standard;
                                                                                                                       GCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GECGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                  GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTCATCCAGGAGGGCTGGCCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCGAGGCGGGAGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCCCCGGGGCTCCGGGAGAGAA
                                              CDNA;
                                              ВР
```

1320

1200 1200 1260 960 1020 1020 1080 1080 900 900

960

720

720 780 780 540 600 660

```
밁
                          Ş
                                            밁
                                                          δÃ
                                                                              Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
20-JUL-1999;
26-JUL-1999;
                                                                                                                                                                                                                                 Claim
                                                                                                                                                                                              encoding the
                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                              is:
                                                                                                                                                                                                                                                  New composition useful treating cancers, computheir antagonists -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRO344; DNA40592-1242; human; ATCC No: 209492; antiproliferative; neoplastic cell growth inhibitor; cytostatic; treatment; cancer; breast; prostate; colon; lung; renal; ovarian; central nervous sy CNS; leukemia; melanoma; Expressed Sequence Tag; EST; secreted pr
                                                                                                                                            and PRO344.
cancers such
                                                                                                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                    08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                                                   Sequence
                                                                                                                                                                                (ECD)
                                                                                                                                                                                                                                                                                                                               (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                    30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200032778-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     extracellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-NOV-2000
                                                                                         Local
                                                                                                Match
                                                                                                                                                              used
                                                                                                                                  present sequence is the cDNA clone, designated as DNA40592-1242, odding the human PRO344 polypeptide. It is isolated from human foctal g tissue cDNA library, identified using probes based on a consensus uence DNA34398, derived from secreted protein extracellular domain D) Expressed Sequence Tag (EST). This clone is assigned ATCC deposit 209492. PRO344 functions as a neoplastic cell growth inhibitor and used for treating tumours, using an effective amount of PRO655, PRO34 PRO344. This composition is especially useful for treatment of human cers such as breast, prostate, colon, lung, renal, ovarian and CNS, kemia and melanoma.
                                                                                                                                                                                                                                                                                     2000-412325/35
DB; AAY71468.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                  20;
           61
                           19
                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                               GENENTECH
          TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCCGGGGAGAACCGCCGGGGGCTGGAGCACCA
                                                      GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                              Goddard
                                            GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                Fig
                                                                                Conservative
                                                                                                                  BP;
                                                                                                                                                                                                                                 <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                98WO-US25108.
98US-0112850.
98US-0113296.
99US-0144758.
99US-0145698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     domain;
                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US28409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= a
/product= "Human F
/note= "Derived f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note- "E
227..271
/*tag- b
272..955
                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag= c
/product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
227.958
/*tag= a
                                                                                                                                                                                                                                108pp;
                                                                                                                                                                                                                                                                                                              Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag=
                                                                                                                                                                                                                                                          seful for i
                                                                                                                                                                                                                                                                                                                               INC.
                                                                                                                  251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                              Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        encoding
                                                                                                                  Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ECD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ۵
                                                                                                                                                                                                                                English.
                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Mature
                                                                                                                                                                                                                                                          inhibiting neoplastic cell PRO655, PRO344 or PRO364 p
                                                                               0
                                                                                                                                                                                                                                                                                                              ΑL,
                                                                                       Score 1377;
Pred. No. 0;
                                                                                                                 Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDNA
                                                                                                                  472
                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                n PRO344 pro
from clone
                                                                                                                                                                                                                                                                                                              Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                       human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone,
                                                                                                                 <u>.</u>
                                                                                                                 232
                                                                                                                                                                                                                                                                                                              ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein"
one DNA40592-1242"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRO344
                                                                                                DВ
                                                                                                                 Ŧ;
                                                                                                                                                                                                                                                                                                              Napier
                                                                                                                 0
                                                                              0;
                                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein'
                                                                                                                  other;
                                                                               Indels
                                                                                                Length
                                                                                                                                                                                                                                                                                                              ź
                                                                                                                                                                                                                                                         l growth and polypeptide
                                                                                                                                                                                                                                                                                                              Wood
                                                                              0;
                                                                                                                                                                                                                                                                                                              ΞĮ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            system;
protein;
                                                                                                                                                                                                                                                         or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tumour;
                                                                                                                                                   PRO364
human
                           120
                                            60
                                                             60
                                                                              0;
δÃ
                밁
                                δ
                                                   밁
                                                                   δÃ
                                                                                       밁
                                                                                                    Š
                                                                                                                         Вp
                                                                                                                                                                                                            δÃ
                                                                                                                                      δ
                                                                                                                                                            밁
                                                                                                                                                                        γQ
                                                                                                                                                                                             문
                                                                                                                                                                                                                           ₽
                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                  νg
                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                        Q_{\mathbf{y}}
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                        ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                 1141
                                  1141
                                                     1081
                                                                     1081
                                                                                        1021
                                                                                                        1021
                                                                                                                          961
                                                                                                                                          961
                                                                                                                                                             901
                                                                                                                                                                                              841
                                                                                                                                                                            901
                                                                                                                                                                                                               841
                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                           GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                      GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                         CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                     GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGCGAGGGCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCGGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTCCTGCTGCTGGGCCTGGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                           CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGGCCGTCTGACGCACCCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                           GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCGAGGCGGGAGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTCCTGCTGCTCCTGGGCCTGGCGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                          1020
                  1200
                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                             960
                                                                                                                                                                            960
                                                                                                                                                                                              900
                                                                                                                                                                                                               900
                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
```

```
ARASULT 4
ARABOLT 1
ARA4407
ARA AAA4
XX AAA44
XX AAA4
XX AAA44
XX A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                             22-DEC-1998;

08-WAR-1999;

02-JUN-1999;

01-SEP-1999;

15-SEP-1999;

30-NOV-1999;

30-NOV-1999;

01-DEC-1999;

02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                   Botstein Wood WI;
                           The present sequence encodes a novel human polypeptide. The specification describes novel polypeptides designated PRO201, PRO202, PRO327, PRO1165, PRO344, PRO343, PRO347, PRO357, PRO715, PRO1017, PRO11112, PRO509, PRO853 and PRO882. These genes are amplified in the genome of tumour cells. The polypeptides are believed to contribute to tumourigenesis. The polypeptides are useful target for the identification of certain cancers, and may act as predictors of the prognosis of tumour treatment. Antibodies against these polypeptides are useful in the treatment and diagnosis of neoplastic cell growth and proliferation in mammals.
                                                                                                                                                                                                                                                                                                        WPI;
   Sequence
                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                    New anti-polypeptide antibody useful in the neoplastic cell growth and proliferation -
                                                                                                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200037640-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRO201; PRO292; PRO327; PRO1265; PRO715; PRO1017; PRO1112; PRO509;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cDNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA46907;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA46907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumourigenesis; cancer; neoplastic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                      2000-452188/39
DB; AAY93688.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fig
                                                                                                                                                                                                                                                                                                                                                Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
   BP;
                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         novel polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0113296.
99WO-US05028.
99WO-US12252.
99WO-US20111.
99WO-US21090.
99WO-US28313.
                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US28409.
99WO-US28301.
99WO-US28565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers 227..958
                                                                                                                                                                                                    220pp;
   251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA; 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                P
 Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ρι
                                                                                                                                                                                                       English.
   422
                                                                                                                                                                                                                                                                                                                                                Gurney
 Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВP
   472
                                                                                                                                                                                                                                                                                                                                                ΑĽ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRO344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRO344; PRO343; PRO347; PRO853; PRO882; tumour (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell growth;
 ç;
                                                                                                                                                                                                                                                                                                                                                Hillan
   232
   ₽,
                                                                                                                                                                                                                                                      treatment
                                                                                                                                                                                                                                                                                                                                                7,
   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell proliferation;
                                                                                                                                                                                                                                                                                                                                                Lawrence
                                                                                                                                                                                                                                                      and
                                                                                                                                                                                                                                                                                                                                               DA,
                                                                                                                                                                                                                                                      diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRO357;
                                                                                                                                                                                                                                                                                                                                                Roy
                                                                                                                                                                                                                                                                                                                                                ΜĂ
                                                                                                                                                                                                                                                      of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1260
                                        δÃ
                                                                       밁
                                                                                                       δã
                                                                                                                                                                δõ
                                                                                                                                                                                                                                 ρ
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                              ρy
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                       В
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1377; Conserv
                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                            901
                                                                                                           901
                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                               CCCACTGCAAAGTGAGCTCATGCTCTCACCTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                 CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
```

```
TGGGGTGACGGCAGGGCAGGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                           CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCCTCTGCCCGGGCCACCCCGGCCTTCCAGGCACGCCGGGCCACCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                   AGGCGAGGCGGGAGCCGGGACTGCCGGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                 CAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGGGCCCACCATGGCAGCCAGGG
                                       GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                       GGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                          AGGCGAGGGCGGGACCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1377;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
960
                    960
                                        900
                                                           900
                                                                              840
                                                                                                   840
                                                                                                                                         780
                                                                                                                                                              720
                                                                                                                                                                                720
                                                                                                                                                                                                    660
                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
```

```
RESULT 5
AAA49560
ID AAA449560
ID AAA449560
ID AAA4
XX AAA4960
AC AAA4
XX PROJ
KW PROJ
KW PROJ
KW PROJ
KW PROJ
KW PROJ
KW AATI
KW SS.
XX HOMC

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B 64 B 64 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                      01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
                                                                                                                                                                                       Gerritsen )
Hillan KJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRO243;
PRO355;
                   Claim
                                                       New human nucleic acids polypeptides, designated and diagnostic agents
                                                                                                                                                                                                                                                                                                                                                                                   01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                         08-JUN-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200032776-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA49560
                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAA49560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000-412324/35.
DB; AAB01318.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                     2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO344
                                                                                                                                                                    n ME, oc.
(J, Kljavin ?
                 Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACTCTCCGTCCTGCTGCCAGGAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                       Botstein D,
ME, Goddard P
Kljavin IJ,
                     17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                      98WO-US25108.
98US-0112850.
98US-0113296.
                                                                                                                                                                                                                                                                                                                                                                                   99WO-US28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag- a
/product-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers 227..958
                 187pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                         7
                                                                           encoding
d as PRO p
                                                                                                                                                                                     Eaton DL, Ferrara N, Filvaroff E;
A, Godowski PJ, Grimaldi CJ, Gurney
Napier MA, Roy MA, Tumas D, Wood F
                   English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRO344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                       g secreted and
polypeptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               transmembrane polypeptide; inhibition; probe; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polypeptide
                                                                         transmembrane useful as pha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRO357; PRO327; PRO344; PRO347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       primer; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080
```

```
밁
              Ş
                                     밁
                                                     δÃ
                                                                               밁
                                                                                             QΥ
                                                                                                                       В
                                                                                                                                     δÃ
                                                                                                                                                       뫄
                                                                                                                                                                            δÃ
                                                                                                                                                                                                      멍
                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8888888x&
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human nucleic acids encoging secretion and propertides which are designated as PRO polypeptides are described polypeptides which are designated as PRO polypeptides are described. The membrane-bound proteins have various industrial applications, including as pharmaceutical and diagnostic agents. The membrane-bound proteins can also be employed for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. Anti-PRO antibodies are useful for the affinity purification of PRO from recombinant cell culture or natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       atch 100.0%; cal Similarity 100.0%; 1377; Conservative (
  781
                    781
                                        721
                                                            721
                                                                                 661
                                                                                                   661
                                                                                                                        601
                                                                                                                                           601
                                                                                                                                                               541
                                                                                                                                                                                  541
                                                                                                                                                                                                       481
                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ш
                                                                              CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                        CGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                          CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                 GCCGGGACCCGCGGGCCCACCGGGCCCTGCCGGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                              CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                   GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGTGACGGCAGGGCAGGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1377
                                                                                                                                                               CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                      GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                  AGGCGAGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGACCCCCGGGCCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                           GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              422 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1377;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
  840
                                        780
                                                                                                                       660
                                                                                                                                           660
                                                                                                                                                               600
                                                                                                                                                                                   600
                                                                                                                                                                                                       540
                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
```

```
Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                        ρ Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               돲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                    밁
01-DEC-1999

01-DEC-1999

02-DEC-1999

02-DEC-1999

02-DEC-1999

02-DEC-1999

16-DEC-1999

20-DEC-1999

20-DEC-1999

30-DEC-1999

30-DEC-1999

06-JAN-2000

11-FEB-2000

18-FEB-2000

18-FEB-2000
                                                                                                                                                                                                                      breast; prostate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage; ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte; A-peptide; factor VIIA; gene therapy; ss.
                                                                                                                                                      01-DEC-2000;
                                                                                                                                                                         07-JUN-2001
                                                                                                                                                                                            WO200140466-A2
                                                                                                                                                                                                                                                                               Human cDNA sequence
                                                                                                                                                                                                                                                                                                                                       AAS21424 standard;
                                                                                                                                                                                                                                                                                                  24-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                            1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                     GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACTCTCCGTCCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                       GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGCATGGGCTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACTCTCCGTCCTGCTGCTGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTCATCCAGGAGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US28565.
99US-0170262.
99WO-US30095.
99WO-US30991.
99WO-US30999.
99WO-US31243.
2000WO-US03277.
2000WO-US03365.
2000WO-US03365.
2000WO-US04341.
2000WO-US04341.
                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                      2000WO-US32678
                                                                                                       99WO-US28564
                                                                                                                  99WO-US28551
                                                                                                                                                                                                                                                                                                                                       cDNA; 1377
                                                                                                                                                                                                                                                                              encoding
                                                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                              for PRO344 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
```

ν 밁 ρ 밁 Ω 밁 Š

181

61

TGGGGTGACGCCAGGGCAGGGGGCCCCTGGCCCGGGGAGAAGCGCGCGGGGCCTGGAGCACCA

TGGGGTGACGGCAGGGCAGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA

120 120 60 GACTAGTTCTCTTGGAGTCTGGGAGGGAGGGAAGCGGAGCCGGCAGGGAGCGAACCAGGAC

GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC

CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG

Query Match
Best Local Similarity
Matches 1377; Conserv

Conservative

0

Score 1377; Pred. No. 0; 0; Mismatches

1377; No. 0;

DΒ 0 22;

Length

0,

Gaps

100.0%;

밁

CGTCCTGCTGCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCC

GGGACTGCGAGAGGACCCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG

```
AAS21244-AAS21518 encode for novel human secretory and transmembrane CC PRO polypeptides. The PRO polypeptides are useful to detect other CC PRO polypeptides, to link bloactive molecules to cells expressing PRO polypeptides, to modulate biological activities of cells expressing CC PRO polypeptides, and to detect the presence of mammalian lung, colon, CC breast, prostate, rectal, cervical or liver tumours by comparing PRO polypeptides expression in a cell sample to that in a control sample. CC polypeptide expression in a cell sample to that in a control sample. CC come of the 275 sequences are also useful to stimulate the release of CC tumour necrosis factor-alpha (TNF-alpha) from human blood, the proliferation or differentiation of chondrocytes, the proliferation or correct cartilage, the proliferation of inner ear utricular supporting cells or CC of T-lymphocytes, the release of a cytokine from peripheral blood CC monocytes (PBMCs), or the proliferation of endothelial cells. Some of the PRO polypeptides may modulate glucose or free fatty acid uptake by CC skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide CC stellar involved in binding interactions. The polynucleotides encoding CC PRO polypeptides can be used in assays to identify corrections in the properties can be used in assays to identify corrections. The polynucleotides encoding CC PRO polypeptides can be used in assays to identify corrections of the properties of the properties can be used in assays to identify corrections of the properties of the properties can be used in assays to identify corrections of the properties of the properties can be used in assays to identify the properties of the properties of the properties of the properties can be used in assays to identify the properties of the properti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
20-MAR-2000;
21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Isolated, secretory and transmembrane PRO polypeptide used to detect other PRO polypeptides, link bloactive molecules to cells expressing PRO polypeptides, and detect the presence of mammalian tumours e.g. lung, breast, prostate, cervical -
Sequence 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gerritsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker
                                                transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-NOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001-408281/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Fig 361; 813pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU12352.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Beresini M,
ME, Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Stewart TA,
                                                ဝူ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US04414
2000WO-US05004
2000WO-US05004
2000WO-US05601
2000WO-US07377
2000WO-US07377
2000WO-US08439
2000WO-US13705
2000WO-US14042
2000WO-US14042
2000WO-US15264
2000WO-US330873
  BP;
                                              knock out animals and can be used in gene
251 A; 422 C; 472 G; 232 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        I A, Godow
Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Deforge L, Desnoyers L, F
A, Godowski PJ, Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Filvaroff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ivaroff E,
Sherwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ξ
```

ВP

CDNA SEQ Ä

NO:240

```
GCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTAGCAA
                                                                                                                                                                         GCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                     GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                                                                                                                                                                                               CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                           CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                          GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGAGGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                              1200
                                                                                                                                                    1200
                                                                                                                                                                          1140
                                                                                                                                                                                                 1140
                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7,20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
 밁
15-SEP-1999
15-SEP-1999
05-OCT-1999
29-OCT-1999
30-NOV-1999
30-NOV-1999
01-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
03-DEC-1999
04-DEC-1999
05-JAN-2000
06-JAN-2000
06-JAN-2000
01-FEB-2000
11-FEB-2000
                                                                                                                                                                                                                                01-SEP-1999;
08-SEP-1999;
13-SEP-1999;
                                                                                                                                                                                                                                                                                                              04-MAY-1999;
14-MAY-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; immune related disease; diagnosis; antiinflammatory; cardiant; dermatological; antiarthritic; antirheumatic; immunosuppressive; haemostatic; antiithyroid; antidiabetic; nootropic; neuroprotective; antianaemic; hepatotropic; virucide; antipsoriatic; antialtergic; antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis; osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis; idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis; systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus; systemic vasculitis; autoimmune-mediated renal disease; demyelinating disease; hepatobillary disease; Whipple's disease; inflammatory bowel disease; gluten-sensitive enteropathy; autoimmune disease; immune-mediated skin disease; allergic disease; immunological disease; transplantation associated disease; craft-resustrationassociated disease;
                                                                                                                                                                                                                                                                                        20-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                       08-MAR-1999;
10-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                         02-MAR-2000;
                                                                                                                                                                                                                                                                 26-JUL-1999;
28-JUL-1999;
                                                                                                                                                                                                                                                                                                    23-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                 12-MAR-1999,
23-MAR-1999,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAC58626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRO344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; cDNA; 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0162506.
99WO-US28131.
99WO-US28409.
99WO-US28409.
99WO-US28551.
99WO-US28551.
99WO-US28564.
99WO-US28564.
99WO-US28564.
99WO-US28565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein UNQ303 encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US05841.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                               99WS-0134287
99WG-US12252
99WG-0141037
99WS-0144758
99WS-0144568
99WG-US20111
99WG-US20524
99WG-US20944
99WG-US21094
99WG-US21094
99WG-US21094
99WG-US21094
                                                                                                                                                                                                                                                                                                                                                                     99WO-US05028.
99US-0123618.
99US-0123957.
99US-0125775.
99US-0128849.
                                                                                                                                                                                                                                                                                                                                      99US
                                                                                                                                                                                                                                                                                                                                               99WO-US08615
99US-0131445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 graft-versus-host-disease;
```

-0132371

Š

В õ 밁 Ş

밁

Š 밁 Ş B Qy 문

1141

δÃ

1021 961 961 901 901

밁

δÃ

밁 δ g Š

841 841 781

781 721

B 5 В δ В δ 밁 δ B

721 661 δ B õ Ъ Q 밁 Ş 밁

421

361 361 301

601 541 541

481 481 421

601

```
Ş
                       밁
                                        δÃ
                                                             В
                                                                                  Š
                                                                                                        용 원
                                                                                                                                                      g
Qy
                                                                                                                                                                                                밁
                                                                                                                                                                                                                        γQ
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                     δð
                                                                                                                                                                                                                                                                                             뫄
                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes sixty four human PRO proteins which can CC be used in the treatment of immune related diseases. The human PRO CC proteins, anti-PRO antibodies, agonists and antagonists are useful for CC treating and diagnosing immune related disorders. The disorders are CC selected from systemic lupus erythematosus, rheumatoid arthritis, costeoarthritis, juvenile chronic arthritis, spondyloarthropathies, CC systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's CC syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus, CC immune-mediated renal disease, demyelinating diseases of the central CC and peripheral nervous systems, hepatobiliary diseases, inflammatory CC bowel disease, gluten-sensitive enteropathy and whipple's disease, CC immunological diseases of the lung, and transplantation associated CC diseases including graft rejection and graft-versus-host-disease. CC diseases including graft rejection and graft-versus-host-disease. CC AAC58397 to AAC5878 represent PCR primers and hybridisation probes used in the isolation of human PRO sequences. AAC5879 to AAC5842 and CC AAB33414 to AAB3447 represent human PRO polynucleotide and protein CC sequences given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 1376; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sixty four PRO polypeptides, useful in the diagnosis and treatment immune related disorders, e.g. systemic lupus erythematosis, rheuma arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stewart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ashkenazi AJ,
Kabakoff RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-FEB-2000;
22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000-572271/53.
)B; AAB33461.
                                           361
                                                                    301
                                                                                        301
                                                                                                               241
                                                                                                                                     241
                                                                                                                                                            181
                                                                                                                                                                                  181
  421
                       361
                                                                                                                                                                                                         121
                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23; Fig 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENENTECH
                                                                  CAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                      CGTCCTGCTGCTGGGCCTGGCGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                               TGGGGTGACGGCAGGGCAGGGGGGCCCTGGCCCGGGGAGAACCGCCGGGGGCTGGAGCACCA
                                                                                                                                                                                                                                                                                                             GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAGCCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                        GGGACTGCGAGAGGACCCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                             CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                   TGGGGTGACGCCAGCGCAGGGGGCGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGCACCA
                                                                                                               GGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                        CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                                                                                                                                                                                                                  GACTAGTTCTCTTGGAGTCTGGGAGGAGGGAAAGCGGAGCCGAGCGAACCAGGAC
  AGGCGAGGGCGGGAGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J, Baker KP,
Lu Y, Pan
Tumas D, Wa
                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US04342.
2000WO-US04414.
                                                                                                                                                                                                                                                                                                                                                                                            BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          309pp;
                                                                                                                                                                                                                                                                                                                                                                                          251 A; 423 C; 471 G; 232
                                                                                                                                                                                                                                                                                                                                                        96.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              an J, Per
Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Goddard A,
J, Pennica
stanabe CK,
                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                             Score 1326; D
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               D, s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gurney AL, Hebe
D, Shelton DL,
Wood WI, Yan M;
                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                          T; 0
                                                                                                                                                                                                                                                                                                                                           . 1;
                                                                                                                                                                                                                                                                                                                                                                    21;
                                                                                                                                                                                                                                                                                                                                                                                          other;
                                                                                                                                                                                                                                                                                                                                               , Indels
                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hebert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ert C,
Smith
                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Henzel
                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Σ
  480
                                            420
                                                                                                                                                                                                      180
                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                60
                                                                  360
                                                                                                                                    300
                                                                                                                                                            240
                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                       60
                                                                                        360
                                                                                                            300
                                                                                                                                                                                                                                                                                                                                               0
RESULT 8
AAX24684
ID AAX2
XX
AC AAX2
XX
DT 21-J
XX
DE Huma
                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                     Ωy
                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                          ρ
                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ρy
                                                                                                                         В
                                                                                                                                          Š
                                                                                                                                                                      밁
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮹
Human adipocyte-specific protein zsig39
                                                                   AAX24684
                       21-JUN-1999
                                                                                                                         1321
                                                                                                                                               1321
                                                                                                                                                                      1261
                                                                                                                                                                                             1261
                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                   standard;
                      (first
                                                                   cdna;
                      entry)
```

```
CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                        CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                           CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                   CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCACTCTCCGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTG
                                                                                                                                                                                                                                                                                                  GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCCAAGCCAGCCTCGCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                    1260
                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
```

Qu Ma Qy Db Qy Db	8888888888888888	×88888888888	XX DR DR XX XX XX	PR XX	X XX T T T T T T T T T T T T T T T T T	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Query Match Best Local Similarity Matches 1305; Conser 44 AGGGAGGGA	adipocyte complemen- protein apM1. A fu. library. The zsig3: vectors, cultured or are claimed, as well- applications) and a metabolism by admin. polypeptide may also cryopreservation, fo to ischaemia and/or promoting lysis or p Sequence 1347 BP; 2:	This isolated polynuprotein zsig39 (AAW9) nucleotides 243-962, 285-491, 491, 492, Novel zsig39 polypep EST database for secupstream methionine; 13 amino acids and a discovered, and the iden cDNA allowed the iden	Humes JM, Shepp WPI; 1999-204665 P-PSDB; AAW97984 Zsig39 protein -	04-MAR-1999. 26-AUG-1998; 98WO- 26-AUG-1997; 97US- (ZYMO) ZYMOGENETICS	CDS sig_peptide mat_peptide woo910492-A1.	Adipocyte-specific energy balance; nut Homo sapiens.
94.8%; Score 1305; DB 20; Length 1347; imilarity 100.0%; Pred. No. 0; Indels 0; Gaps 0; AGGGAGCGAACCAGGACTGGGCTGACGGCAGGGCAGGGC	ent related prote full-length clone g39 gene maps to cells and a meth ell as probes and d a method for mo inistering a zsig lso be used in or for surgical preor inflammation, r phagocytosis of 235 A; 421 C; 46	This isolated polynucleotide encodes human adipocyte-specific protein zsig39 (AAW97984). Claimed polynucleotides comprise nucleotides 243-962, 252-962, 285-482, 285-485, 285-485, 285-488, 285-491, 285-491, 491-926 of this isolated polynucleotide. Novel zsig39 polypeptides were initially identified by querying an EST database for secretory signal sequences characterised by an upstream methionine start site, a hydrophobic region of approximately 13 amino acids and a cleavage site. A single EST sequence was discovered, and the novel polypeptide encoded by the full-length cDNA allowed the identification of a homologue relationship with	Sheppard PO; 204665/17. W97984. tein - used to modulate fatty acid metabolism	98WO-US17724. 97US-0056983.	198.929 /*tag- a 198.251 /*tag- b /note- "alternatively nucleotides 198-242" /*tag- c /note- "alternatively nucleotides 243-926"	e; nutrition; antimicrobial; ss.
0	Q	. Qy Qy Qy Db Db Db Db	Qy Db Qy	Qy Db	ор од	Db Qy Db
1035 TAGGGAGGTGGGGTAGAGCACTCTCCTTGGTTGCTGGTGGTAGGAACAGTGGCT 1094 1124 GTCTGCGATCAGGTCTGGCAGCATGGGCAGTGGCAGTGGCAATGGGAACAGTGGCT 1094 1124 GTCTGCGATCAGGTCTGGCAGCATGGGCAGTGGCAGTGGCTGCCCAAGACCAGAGGA 1183 1111111111111111111111111111111111		704 TACCGGGCCAGCCIGCAGTITGAICTAGAGAATGGCGAATCCATTGCCTCTTTCTTC		464 CCCGGGCCGCGAGAGAGGGGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCG	284 GACGACAAGAACCAGCCTCTGCCCGGGCACCCGGCCTTCCAGCACGCGCGCCTTCCAGCACGACCATCCCAGCCCTGGCCGGCC	

```
ARESULT 9
AAF44970
ID AAF44970
AC AAF4
XX AAF4
XX Huma
XX Huma
XX Huma
KW INTH
KW neur
KW NC20
XX HOMC
PN WO20
XX HOMC
PN WO20
XX HOMC
PN WO21
XX HOMC
YX HOMC
XX HOMC
YX HOMC
XX The
PT dise

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                            δÃ
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                       δõ
                                                                                         맒
                                                                                                                                                               문
                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                       δõ
                               В
                                                                                                                                                                                                                                                                                               Query Match
Best Local Sim
Matches 1289;
                                                                                                                                                                                                                                                                                                                                                                                            The present invention provides the protein and coding sequences of the human and murine secreted or transmembrane proteins TANGO 253, TANGO 257, TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                Sequence 1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human TANGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAF44970;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAF44970 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Leiby KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MILL-) MILLENNIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-050109/06.
297
                                  198
                                                                237
                                                                                                  138
                                                                                                                                 177
                                                                                                                                                                                                117
                                                                                                                                                                  78
                                                                                                                                                                                                                                                                 57
                                                                                                                                                                                                                                18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mouse;
                                                                                                                                                                                                                                                                                               Similarity 99.8
89; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTCA
                             ACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCGAAGGAGGCCATCGGGGAGCCGGG
                                                                                                                                                                                                                                GGACTGGGGTGACGGCAGGGCAGGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGC
                                                                                                                                                                                                                                                  GGACTGGGGTGACGGCAGGGCAGGGGGGCCCCTGGCCGGGGAGAAGCCGCGGGGGCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page
                                                                                               AGGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCAC
                                                                                                                                                               ACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGG
TCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  253 coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                                BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    210;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     secreted protein; TANGO253; TANGO 257; TANGO 281;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9908-0336536.
                                                                                                                                                                                                                                                                                                                                                               229 A; 423 C; 460 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  332pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                              81.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1338
                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                              Score 1119;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                         Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ:
                                                                                                                                                                                                                                                                                                                                                               226 T; 0 other;
                                                                                                                                                                                                                                                                                                                                ВВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -
                                                                                                                                                                                                                                                                                                                                22;
                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1348
                                                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                               Gaps
                                                              296
                                                                                                                                236
                                                                                                                                                                                                176
356
                                257
                                                                                                197
                                                                                                                                                               137
                                                                                                                                                                                                                                77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     · Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                      Ş
                                                                                                              B
                                                                                                                                        δõ
                                                                                                                                                                      В
                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΨ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
RESULT
10
                                                1277
                                                                                                                1217
                                                                                                                                               1257
                                                                                                                                                                                1157
                                                                                                                                                                                                                                                1097
                                                                                                                                                                                                                                                                               1137
                                                                                                                                                                                                                                                                                                                                             1077
                                                                                                                                                                                                                                                                                                                                                                                                               1017
                                                                                                                                                                                                                                                                                                                                                                                977
                                                                                                                                                                                                                                                                                                                                                                                                                                                917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   797
                                                                 CAGAGATCACTCAATAAACCTAAGAACCCTC
                                                                                                                                 GGTCCTCTGCTTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCT
                                                                                                                                                                                                                                            TCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTG
                                                                                                                                                                                                                                                                                                              TAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGC
                                                CAGAGATCACTCAATAAACCTAAGAACCCTC
                                                                                                                GGTCCTCTGCTTCTCGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCT
                                                                                                                                                                                GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                                                                                 GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                ACCTGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                              ACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGCCCACTGCAAAGTGAGCTCCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTCGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGAGGCGGGACCCGCGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCCTCGGTGCCTCCGCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAAGGCGAGGCGGGAGG-CGGGACCTCGAGGGGACCCCGGGCCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCC
                                                                                                                1276
                                                                                                                                               1316
                                                                                                                                                                                1216
                                                                                                                                                                                                             1256
                                                                                                                                                                                                                                                                               1196
                                                                                                                                                                                                                                                                                                                1096
                                                                                                                                                                                                                                                                                                                                                                                1036
                                                                                                                                                                                                                                                                                                                                                                                                             1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        416
                                                                                                                                                                                                                                                                                                                                                                                                                                                  976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          317
```

```
β Q
                                  밁
                                                 δ
                                                                    ₽
                                                                               δ
                                                                                               밁
                                                                                                                Š
                                                                                                                                   밁
                                                                                                                                             δ
                                                                                                                                                               밁
                                                                                                                                                                              Ş
                                                                                                                                                                                               Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                         The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, TANGO 281 and INTERCEPT 258. These are useful in the treatment coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                                                                                                                                                          Leiby
                                                                                                                                                                                                                                                                                                            New nucleic acids for treating diseases and disorders, e. atherosclerosis, infection, autoimmune diseases, obesity, disorders, brain disorders, tumors, diabetes, arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Нопо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTERCEPT 258;
neurological d
                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                       Disclosure;
                                                                                                                                                                                                                                                                                                                                                                         (MILL-) MILLENNIUM PHARM
                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                       19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                       28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200078808-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAF44998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAF44998
                                                                                                                                                                                                      y Match
Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens.
                        357
                                                      297
                                                                     198
                                                                                     237
                                                                                                    138
                                                                                                                    177
                                       258
                                                                                                                                                  117
                                                                                                                                   78
                                                                                                                                                                  18
                                                                                                                                                                               57
                                                                                                                                                                                                                                                                                                                                                           KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        secreted
                                                                                                                                                                                                      Similarity
                                                                                                                                 ACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGG
                                                                                                                                                                         GGACTGGGGTGACGGCAGGGCAGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGGCTGGAGC
                                     GGACTGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGC
                 TCCTCGTCCTGCTCCTGGGCCTGGCCGGCCTCGCCCCCACTGGACGACAACAAGA
                                                                             AGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
          AGGGCTTGCCGGGCCGATGGCCGCGACGGCCGACGGTGCGCCCCGGGGCTCCGGGAG
                                                                                                  AGGGGGGACTGCGAGAGGACCCCGGCGTCCCGGGCTCCCGGTGCCAGCGCTATGAGGCCAC
                                                                                                                                                                                                                                                                                                       and asthma
                                                                                                                                                                                                                                                                                                                                                          McKay
                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                       Page 271;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; secreted protein; TANGO253; TANGO 257; TANGO 281;
8; coronary disorder; olfactory disorder;
disorder; pulmonary disorder; immunological disorder;
l disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                              BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                                                                                                         9908-0336536
                                                                                                                                                                                                                                                                                                                                                       , c,
                                                                                                                                                                                                                              229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                      77.6%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                          Bossone
                                                                                                                                                                                                                             A;
                                                                                                                                                                                                                                                                                       332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       related
                                                                                                                                                                                                                             422 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1338
                                                                                                                                                                                              0;
                                                                                                                                                                                              Score 1068; r
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                          Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       coding
                                                                                                                                                                                                                            460 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence
                                                                                                                                                                                                                             227
                                                                                                                                                                                                              BG
                                                                                                                                                                                                                           Η,
                                                                                                                                                                                                              22;
                                                                                                                                                                                                                           0
                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ
                                                                                                                                                                                                                             other;
                                                                                                                                                                                                            Length
                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NO:
                                                                                                                                                                                                                                                                                                                3.g.
7. ear
                                                                                                                                                                                                                                                                                                             multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        103.
                                                                                                                                                                                              ۲.
                                                                                                                                                                                                                                                              s of the mango 257,
                                                                                                                                                                                                                                                          TANGO
of
                                                                                                                                                                                              Gaps
                        416
                                     317
                                                     356
                                                                    257
                                                                                    296
                                                                                                   197
                                                                                                                   236
                                                                                                                                  137
                                                                                                                                                                77
RESULT 11
AAF4499
ID AAF44
XX
AC AAF44
XX
DT 28-MA
                                                                             밁
                                                                                       Š
                                                                                                           В
                                                                                                                         Ş
                                                                                                                                         В
                                                                                                                                                    δÃ
                                                                                                                                                                        B
                                                                                                                                                                                     Ş
                                                                                                                                                                                                      멍
                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                                                                                                                       δã
                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                 δõ
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                              δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                      AAF44999
         28-MAR-2001
                                                                                                                                         1157
                                                                                                                                                                         1097
                                                                                                                                                                                      1137
                                                                             1277
                                                                                           1317
                                                                                                           1217
                                                                                                                          1257
                                                                                                                                                          1197
                                                                                                                                                                                                      1037
                                                                                                                                                                                                                    1077
                                                                                                                                                                                                                                                  1017
                                                                                                                                                                                                                                   977
                                                                                                                                                                                                                                                                917
                                                                                                                                                                                                                                                                               957
                                                                                                                                                                                                                                                                                              857
                                                                                                                                                                                                                                                                                                            897
                                                                                                                                                                                                                                                                                                                            797
                                                                                                                                                                                                                                                                                                                                           837
                                                                                                                                                                                                                                                                                                                                                          737
                                                                                                                                                                                                                                                                                                                                                                         777
                                                                                                                                                                                                                                                                                                                                                                                         677
                                                                                                                                                                                                                                                                                                                                                                                                      717
                                                                                                                                                                                                                                                                                                                                                                                                                      617
                                                                                                                                                                                                                                                                                                                                                                                                                                     657
                                                                                                                                                                                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           417
                                                                            TAGAGCACTCTCCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                                                                   ACCAGGTCATCCAGGAGGCCTGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                                                               AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                             GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                     CCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCA
                                       standard;
                                                                                                                                                                                       TCTGGCAGCATGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTG
                                                                                                                                                                                                      TAGAGCACTCTCCGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                                                                                                                                                                                          GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                CCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGAG
                                                                                                                                                                                                                                                                                                                                                                                        GAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGAT
        (first
                                       cDNA;
        entry)
                                       1338
                                       ВP
                                                                                            1347
                                                                                                                          1316
                                                                                                                                          1216
                                                                                                                                                                         1156
                                                                                                                                                                                      1196
                                                                                                                                                                                                                     1136
                                                                                                                                                                                                                                    1036
                                                                                                                                                                                                                                                  1076
                                                                                                                                                                                                                                                                976
                                                                                                                                                                                                                                                                               1016
                                                                                                            1276
                                                                                                                                                                                                       1096
                                                                                                                                                                                                                                                                                               916
                                                                                                                                                                                                                                                                                                            956
                                                                                                                                                                                                                                                                                                                            856
                                                                                                                                                                                                                                                                                                                                        968
                                                                                                                                                                                                                                                                                                                                                        796
                                                                                                                                                                                                                                                                                                                                                                        836
                                                                                                                                                                                                                                                                                                                                                                                       736
                                                                                                                                                                                                                                                                                                                                                                                                      776
                                                                                                                                                                                                                                                                                                                                                                                                                     676
                                                                                                                                                                                                                                                                                                                                                                                                                                     716
                                                                                                                                                                                                                                                                                                                                                                                                                                                    616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             436
```

616 656 556

```
Query Match
Best Local S
Matches 1288
                                                                                                                                                                                                                                                                                                                                                                                                                       human and
TANGO 281
coronary,
                                                                                                                                                                                                                                                                                                                                                                                                             The present invention provides the protein and coding sequences of the human and murine secreted or transmembrane proteins TANGO 253, TANGO TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1338 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MILL-) MILLENNIUM PHARM
                                                                                                                                                                                                                                                                                                                                                1288;
                                                              417
                                                                                                         357
                                                                                                                                                                          198
                                                                                                                                                                                                                   138
  437
                      477
                                           378
                                                                                      318
                                                                                                                               258
                                                                                                                                                    297
                                                                                                                                                                                              237
                                                                                                                                                                                                                                        177
                                                                                                                                                                                                                                                                                  117
                                                                                                                                                                                                                                                                                                                           57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KR,
                                                                                                                                                                                                                                                                                                       18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   secreted
                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                  AGGCCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAG
                                                                                                                              GGACTGGGGTGACGGCAGGGCAGGGGGCCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGC
            GAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGCTGCCGCGAT
                                                     AGAAAGGCGAGGGGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAG
                                                                                                                                                                                                                  AGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCAC
                                                                                                                                                                                                                                                                                                       GGACTGGGGTGACGGCAGGGCAGGGGGGCGCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGC
                                            AGAAAGGCGAGGGCGGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            McKay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page
                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0336536.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                                                                                                                                                                                                                                                                          229 A; 422 C;
                                                                                                                                                                                                                                                                                                                                                        77.6%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein; T/
/ disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 related coding sequence
                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                            Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
                                           -CGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAG
                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                          460 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TANGO253; TANGO
                                                                                                                                                                                                                                                                                                                                                            1068;
No. 0;
                                                                                                                                                                                                                                                                                                                                                                                         227 T; 0
                                                                                                                                                                                                                                                                                                                                                                     ĎΒ
                                                                                                                                                                                                                                                                                                                                                                     22;
                                                                                                                                                                                                                                                                                                                                               2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ
                                                                                                                                                                                                                                                                                                                                                                                          other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             257; TANGO
                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             281;
                                                                                                                                                                                                                                                                                                                                               1;
                     536
                                          436
                                                                                                                                                                                              296
  496
                                                                                      377
                                                                                                         416
                                                                                                                              317
                                                                                                                                                   356
                                                                                                                                                                         257
                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                            137
                                                                                                                                                                                                                                                                                                      77
AAF45000
ID AAF45
XX
AAF45000
AAF45
XX
AC AAF45
XX
DT 28-MA
XX
DT 28-MA
XX
DE Human
XX
INTER
KW neuro
KW devel
XX
                                                                                                                                                                                                 δõ
                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                Д
                                                                                                                                                                                                                                                                                    γQ
                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                δã
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뫄
          Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder; ss.
                                                                                                          AAF45000
                                                                                                                              AAF45000
                                                                                                                                                                                   1277
                                                                                                                                                                                                                             1217
                                                                                                                                                                                                                                                                       1157
                                                                                                                                                                                                                                                                                           1197
                                                                                                                                                                                                                                                                                                                1097
                                                                                                                                                                                                                                                                                                                                    1137
                                                                                                                                                                                                                                                                                                                                                         1037
                                                                                                                                                                                                       1317
                                                                                                                                                                                                                                                  1257
                                                                                                                                                                                                                                                                                                                                                                               1077
                                                                                                                                                                                                                                                                                                                                                                                                                        1017
                                                                                                                                                                                                                                                                                                                                                                                                    977
                                                                                                                                                                                                                                                                                                                                                                                                                                             917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       537
                                                                secreted
                                                                                                                                                                                   TAGAGCACTCTCCGTCCTGCTGCTGCAGGAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                                                                                                                                                                                                                                  ACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                             GGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCT
                                                                                                                                                                                                                                                                       GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCCT
                                                                                                                                                                                                                                                                                  GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                                                                                                                                                                                               TCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGCCCACTGCAAAGTGAGCTCATGCTCCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                              protein
                                                                                                                              CDNA;
                                                                                   entry)
                                                               related
                                                                                                                              1338
                                                                                                                              ВP
                                                              coding sequence SEQ
                                                                                                                                                                                                       1347
                                                                NO:
```

1076

1016

916 956 856 896 796 836 736 776 676

976

1096 1136 1036

1276 1316 1216 1256

δ

В ρŞ

밁 S B

8

80 PB

В δ 밁 Q 밁

Ş

```
Š
                        日
                                    5
                                                    В
                                                                    Q, D
                                                                                                   δ
                                                                                                                    В
                                                                                                                                    γQ
                                                                                                                                                         밁
                                                                                                                                                                    Š
                                                                                                                                                                                         밁
                                                                                                                                                                                                       Q
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                       QΥ
                                                                                                                                                                                                                                                          Б
                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 1288
                                                                                                                                                                                                                                                                                                                                                                         coronary, pulmonary, olfa developmental and kidney
                                                                                                                                                                                                                                                                                                                                                                                          TANGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                 New nucleic acids for treating diseases and disorders, e. atherosclerosis, infection, autoimmune diseases, obesity, disorders, brain disorders, tumors, diabetes, arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                          sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MILL-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                          present invention
                      497
          597
                                       537
                                                         437
                                                                         477
                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                          pal Similarity
1288; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens.
                                                                                          378
                                                                                                         417
                                                                                                                          318
                                                                                                                                                                         297
                                                                                                                                                                                                                          138
                                                                                                                                                                                                                                           177
                                                                                                                                         357
                                                                                                                                                           258
                                                                                                                                                                                                          237
                                                                                                                                                                                                                                                                          117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001-050109/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KR,
                                                                                                                                                                                                                                                                                                                                                                        resent invention provides the protein and coding sequences of and murine secreted or transmembrane proteins TANGO 253, TAN 281 and INTERCEPT 258. These are useful in the treatment of ary, pulmonary, olfactory, immunological, neurological, opmental and kidney disorders.
                                                                                                                                                                                                                                                          78
                                                                                                                                                                                                                                                                                          18
                                                                                                                                                                                                                                                                                                          57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MILLENNIUM PHARM
                       CCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGC
                                                        GAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGAT
                                                                                       AGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAG
                                                                                                                                                                                                                                                        ACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGG
                                                                                                                                                                                                                                                                                                                                                         1338
        CCTTCGACCGCGTGCTGGTGAACGAGCAGGGGACATTACGACGCCGTCACCGGCAAGTTCA
                                                                                                                                 AGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCCCCGGGGCCTCCGGGAG
                                                                                                                                                                  TCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCC
                                                                                                                                                                                                  TCCTCGTCCTGCTCCTGGGCCTGGCGGCGGCTCGCCCCCACTGGACAACAAGA
                                                                                                                                                                                                                                   AGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCAC
                                                                                                                                                                                                                                                                                         GGACTGGGGTGACGGCAGGGCAGGGGGGGGGCCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGC
                                                                                                                         AGGGCTTGCCGGGCCGATGGCCGCGACGGCCGACGGCGCGCCCCGGGGCTCCGGGAG
                                                                                                                                                          TCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCC
                                                                                                                                                                                          AGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                          and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                         Page 273;
                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                         вP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0336536
                                                                                                                                                                                                                                                                                                                                                         229 A; 424 C; 460
                                                                                                                                                                                                                                                                                                                                 77.6%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                        332pp;
                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                         Score 1068; D
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                         <u>(;</u>
                                                                                                                                                                                                                                                                                                                                                         225
                                                                                                                                                                                                                                                                                                                                          ₽B
                                                                                                                                                                                                                                                                                                                                                         H
                                                                                                                                                                                                                                                                                                                                          22;
                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                         <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                         other;
                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                 multiple
                                                                                                                                                                                                                                                                                                                         1;
                                                                                                                                                                                                                                                                                                                                                                                                s of the TANGO 257,
                                                                                                                                                                                                                                                                                                                         Gaps
                                                                       536
                                        596
                                                         496
                                                                                         436
                                                                                                        476
                                                                                                                                         416
                                                                                                                                                                         356
        656
                                                                                                                         377
                                                                                                                                                         317
                                                                                                                                                                                          257
                                                                                                                                                                                                         296
                                                                                                                                                                                                                          197
                                                                                                                                                                                                                                         236
                                                                                                                                                                                                                                                         137
                                                                                                                                                                                                                                                                         176
                                                                                                                                                                                                                                                                                         77
AAF4501
ID AAF4501
XX AAF45
AC AAF45
XX 28-MA
DT 28-MA
XX Human
XX Human
XX INTER
KW INTER
KW devel
XX devel
XX Homo
XX WO200
XX 19-DE
XX 19-DE
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                              ρy
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
19-ЈИМ-2000;
                 28-DEC-2000
                                                                 developmental
                                                                                         Human;
                                                                                                                         28-MAR-2001
                                                                                                                                         AAF45001;
                                                                                                                                                         AAF45001
                                                                                                                                                                                                                                  1217
                                                                                                                                                                                                                                                  1257
                                                                                                                                                                                                                                                                 1157
                                                                                                                                                                                                                                                                                 1197
                                                                                                                                                                                                                                                                                                                                 1037
                                                                                                                                                                                                                  1317
                                                                                                                                                                                                                                                                                                  1097
                                                                                                                                                                                                                                                                                                                 1137
                                                                                                                                                                                                                                                                                                                                                 1077
                                                                                                                                                                                                 1277
                                                                                                                                                                                                                                                                                                                                                                                 1017
                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                 977
                                                                                                                                                                                                                                                                                                                                                                                                  917
                                                                                                                                                                                                                                                                                                                                                                                                                 957
                                                                                                                                                                                                                                                                                                                                                                                                                                 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 557
                                                                                mouse; s
EPT 258;
                                                                                                                         (first
```

```
CAGAGATCACTCAATAAACCTAAGAACCCTC
|||||||||||||||||
CAGAGATCACTCAATAAACCTAAGAACCCTC
                                                      GGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTTCT
                                                                                                                        GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                                                              TCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTG
                                                                                                                                                                                                                                   TAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                                                                                                       ACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                  TAGAGCACTCTCCGTCCTGCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                                                                                                                                                             GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                                                 TCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCCAAGACCAGAGGAGTGTGCTGCTG
                                                                                                                                                                                                                                                                                                                                              AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTTCGACCGCGTGCTGGCGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCA
                            1347
 1307
                                                                                 1316
                                                                                                            1216
                                                                                                                                     1256
                                                                                                                                                                 1156
                                                                                                                                                                                           1196
                                                                                                                                                                                                                     1096
                                                                                                                                                                                                                                              1136
                                                                                                                                                                                                                                                                          1036
                                                                                                                                                                                                                                                                                                   1076
                                                                                                                                                                                                                                                                                                                                                        1016
                                                       1276
                                                                                                                                                                                                                                                                                                                                976
                                                                                                                                                                                                                                                                                                                                                                                     916
                                                                                                                                                                                                                                                                                                                                                                                                               956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        676
                                                                                                                                                                                                                                                                                                                                                                                                                                          856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               616
```

standard; cDNA;

1338 ВP

Human secreted protein related coding sequence SEQ ij NO: 109

entry)

INTERCEPT 258; coronary
neurological disorder; secreted protein; TANGO253; TANGO 257; TANGO 281; coronary disorder; olfactory disorder; disorder; pulmonary disorder; immunological disorder; disorder; kidney disorder; ss.

WO200078808-A1

2000WO-US16883

```
유
                                                                                                                                           дь
VQ
                                                                                                                                                                       ₽
V2
                                                                                                                                                                                                    밁
                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                     ρy
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                   ρy
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                  δõ
Š
                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Simi
Matches 1288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma -
                                                                                                                                                                                                                                                                                                                                                                                                                                     human and
TANGO 281
                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MILL-) MILLENNIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     present
                                                               597
                                                                             497
                                                                                                                           477
                                                                                                                                            378
                                                                                                                                                                           318
               617
                                              557
                                                                                              537
                                                                                                             437
                                                                                                                                                           417
                                                                                                                                                                                          357
                                                                                                                                                                                                          258
                                                                                                                                                                                                                        297
                                                                                                                                                                                                                                          198
                                                                                                                                                                                                                                                         237
                                                                                                                                                                                                                                                                         138
                                                                                                                                                                                                                                                                                        177
                                                                                                                                                                                                                                                                                                                       117
717
                               657
                                                                                                                                                                                                                                                                                                        78
                                                                                                                                                                                                                                                                                                                                       18
                                                                                                                                                                                                                                                                                                                                                       57
                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                            CCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCA
                                                                            GAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGAGTGCTCGGTGCCTCCGCGAT
                                                                                                                                                                                                                                                                                                       ACCACCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGG
                                                                                                                                                                                                                                                                                                                                               GGACTGGGGTGACGGCAGGGCAGGGGGCCCTGGCCGGGGAGAAGCGCGGGGGCTGGAGC
              AGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGAG
                                                                                                                                                                                  AGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAG
                                                                                                                                                                                                        GGACTGGGGTGACGGCAGGGCAGGGGGGGGCGCCTGGCCGGGGGAGAAGCGCGGGGGGCTGGAGC
AGAAAGGCGAGGCGGGAGG-CGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGGAG
                                                                                                                                                                          AGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGACGGCGCGCCCCGGGGCTCCGGGAG
                                                                                                                                                                                                                                                                                        AGGGGGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                    int invention provides the protein and coding sequences of murine secreted or transmembrane proteins TANGO 253, TANG and INTERCEPT 258. These are useful in the treatment of pulmonary, olfactory, immunological, neurological, intal and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page
                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     274-275;
                                                                                                                                                                                                                                                                                                                                                                                                      228 A; 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PHARM
                                                                                                                                                                                                                                                                                                                                                                              77.6%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   332pp;
                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                              Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                      Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                      460 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                                                                                                                                                                                                                                               1068;
No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                      226 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                      22;
                                                                                                                                                                                                                                                                                                                                                                     2; | Indels
                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                      1,
                                                                                                                                                                                                                                                                                                                                                                                                                                             TANGO
                                                                                                                                                                                                                                                                                                                                                                      Gaps
               676
                                              616
                                                              656
                                                                             556
                                                                                            596
                                                                                                             496
                                                                                                                           536
                                                                                                                                           436
                                                                                                                                                          476
                                                                                                                                                                          377
                                                                                                                                                                                         416
                                                                                                                                                                                                         317
                                                                                                                                                                                                                        356
                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                        296
                                                                                                                                                                                                                                                                        197
                                                                                                                                                                                                                                                                                       236
                                                                                                                                                                                                                                                                                                                       176
                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                      77
                                                                                                                                                                                                                                                                                                                                                       116
```

```
밁
                                                             δÃ
                                                                                      밁
                                                                                                    δã
                                                                                                                      닭
                                                                                                                                           δÃ
                                                                                                                                                                 B
                                                                                                                                                                                  δÃ
                                                                                                                                                                                                      В
                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
Db
AAL39624 standard;
                                                 1277
                                                                                       1217
                                                                                                          1257
                                                                                                                             1157
                                                                                                                                                1197
                                                                                                                                                                   1097
                                                                                                                                                                                                          1037
                                                                                                                                                                                                                             1077
                                                                                                                                                                                                                                                                   1017
                                                                                                                                                                                                                                                 977
                                                                                                                                                                                                                                                                                       917
                                                                                                                                                                                                                                                                                                                                                897
                                                                                                                                                                                                                                                                                                                                                                                                                                                  677
                                                                                                                                                                                                                                                                                                                                                                   797
                                                                                                                                                                                                                                                                                                                                                                                                           737
                                              GGTCCTCTGCTTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCT
                                                                                                                                                                  TCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTG
                                                                                                                                                                                                        TAGAGCACTCTCCGTCCTGCTGCTGCAGGAATGGGAACAGTGGCTGTCTGCGATCAGG
                                                                                                                                                                                                                                               ACCAGGTCATCCAGGAGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                 GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTCCTCTGCTTCTCGGATCCTCCCCACCCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCT
                                                                                                                             GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                        GCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCT
                                                                                                                                                                                                                                                                                       AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                               AGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACA
                                                                                                                                                                                                                                                                                                                             ACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTT
                                                                                                                                                                                                                                                                                                                                      ACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                           GGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACC
DNA;
3248
ВP
                                                                   1347
                                                                                                          1316
                                                                                                                             1216
                                                                                                                                                1256
                                                                                                                                                                   1156
                                                                                                                                                                                      1196
                                                                                                                                                                                                          1096
                                                                                                                                                                                                                            1136
                                                                                                                                                                                                                                                 1036
                                                                                                                                                                                                                                                                  1076
                                                                                                                                                                                                                                                                                       976
                                                                                                                                                                                                                                                                                                         1016
                                                                                                                                                                                                                                                                                                                                                956
                                                                                                                                                                                                                                                                                                                                                                   856
                                                                                                                                                                                                                                                                                                                                                                                       896
                                                                                                                                                                                                                                                                                                                                                                                                           796
                                                                                                                                                                                                                                                                                                                                                                                                                              836
```

AAL39624;

05-SEP-2002 (first entry)

secreted protein DNA SEQ Ħ ĕ 68

RESULT 14
AAL39624
ID AAL39624
AC AAL39
Antiarteriosclerotic; cytostatic; HIV; antiallergic; antianaemic; antiasthmatic; cardiant; vasotropic; neuroprotective; nootropic; SECP; anticonvulsant; antiparkinsonian; cerebroprotective; antiaflammatory; immunosuppressive; human secreted protein; cell proliferative disorder; arteriosclerosis; cancer; autoimmune; inflammatory disorder; AIDS; allergy; anaemia; asthma; cardiovascular disease; developmental disorder; ischaemic heart disease; congestive heart failure; neurological disorder; renal tubular acidosis; hypothyroidism; Alzheimer's disease; dementia; Parkinson's disease; pelpeys; stroke; knockin humanised animal; transgenic animal; gene therapy; gene; ds. sapiens.

16-MAY-2002

08-NOV-2001; 2001WO-US47420

```
Š
                                                В
                                                                                   QΥ
                                                                                                                                밁
                                                                                                                                                                          Ş
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   $\times \times \
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an isolated human secreted protein (SECP)

C polypeptide from 63 fully defined protein sequences given in the

Specification. The polypeptide is useful for the diagnosing/treating of a

C disease with decreased/overexpression of SECP. Examples of disorders

C associated with abnormal expression of SECP. Examples of disorders

C associated with abnormal expression of SECP. Examples of disorders

C disorder e.g. arteriosclerosis, cancers; autoimmune/inflammatory

C congestive heart failure, ischaemic heart disease; developmental disorder

C e.g. renal tubular acidosis, hypothyroidism; neurological disorder e.g.

C Alzheimer's disease, dementia, Parkinson's disease, epilepsy or stroke

C The SECP polynucleotide and polypeptide are further useful for analysing

C the proteome of a tissue or a cell type. The polynucleotide is useful for

C creating knockin humanised animals (pigs) or transgenic animals (mice or

C and further for generating hybridisation probes useful in mapping the

C naturally occurring genomic sequence. This polynucleotide sequence

c represents the DNA of a human secreted protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-NOV-2000;
09-NOV-2000;
16-NOV-2000;
21-NOV-2000;
08-DEC-2000;
18-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ding L,
Lu DAM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human secreted proteins and polynucleotides for diagnosing, treating preventing disorders of cell proliferative, cardiovascular, developmental, neurological and autoimmune/inflammatory disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sanjanwa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (INCY-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Sinnes 912;
                                                                                                                                         2569
                                                                                                                                                                                                                                                                                                                     2449
                                                                                                                                                                                                                                                                                                                                                                                                              2389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Œ,
      797
                                                                                             737
                                                                                                                                                                                   677
                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                          497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2002-519296/55
)B; AAO21663.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5; Page 194-195;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hafalia AJA,
Thangavelu K,
Duggan BM, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yao MG,
                                                                                                                                                                                                                                                                                                                                                                                                           CTCTCGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGT
                                                                                                                                  TACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAG
                                                                                                                                                                                                                          TCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCACCGGGCCTGCCGGGGAGTGCTCGGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGGGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGAGGAGGAGGCGGGACCCGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3248
                                                                     ; 2000US-247505P.

2000US-249824P.

2000US-252824P.

2000US-254305P.

2000US-256448P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MG, Gandhi AR, Baughn MR, S
, Thornton M, Elliott VS, L
111a AJA, Tang YT, Bandman O
1gavelu K, Lee S, Xu Y, Yan
1gan BM, Sapperstein SK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENOMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                565 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66.2%; Score 912; 100.0%; Pred. No. tive 0; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               229pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   946 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lu Y, Garren F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              679 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Swarnakar A, Wali
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 3248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Walia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KJ, Burford |
Honchell CD;
Tran B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                    2628
                                                                                                                                                                                 736
                                                                                                                                                                                                                                                                       676
                                                                                                                                                                                                                                                                                                                                                             616
                                                                                                                                                                                                                                                                                                                                                                                                                                                     556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                496
      856
                                                2688
                                                                                          796
                                                                                                                                                                                                                             2568
                                                                                                                                                                                                                                                                                                                   2508
                                                                                                                                                                                                                                                                                                                                                                                                         2448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2388
```

Ċ.

polynucleotides

encoding

secreted

proteins

useful

for

treating

ø

```
RESULT 15
AAS62288
IID AAS6
XX AAS62
XX AAS6
XX AAS6
XX Huna
XX Huna
XX Inmu
KW Infe
KW Inmu
KW Infe
KW Inmu
KW Infe
KW IMMU
XX HOMO
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                 Wong
                                                                                                                                                                                                                                                                                                                                            Homo
                                                                               Gulukota
                                                                                                                                                                              06-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                            Human secreted protein; hyperproliferative disorder; autoimmune immune deficiency disorder; blood disorder; inflammatory disord infectious disorder; gene therapy; antimicrobial; hepatotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAS62228
                                         WPI; 2002-010900/01
                                                                                                                                                                                                                      29-MAR-2001;
                                                                                                                                                                                                                                                           18-OCT-2001.
                                                                                                                                                                                                                                                                                                     WO200177291-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-FEB-2002
                                                                                                                                       (GEMY)
                                                                                                                                                                                                                                                                                                                                                                                immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2689
                                                                                                 ુ
લ
                                                                                                                                                                                                                                                                                                                                          sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              917
                                                                                                                                         GENETICS
                                                                            ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAAGAACCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAAGAACCCTCA 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTCCCCACCCCCCTCCTGCTGCGGGCCCGGCCCTTTTCTCAGAGAGATCACTCAATAAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCCTGCTTCTCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTGGATTTCTGCCCAAGACCAGAGAGTGTGTGCTGCTGCTGGCAAGTGTAAGTCCCCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCTCTGGTCCAGGAGCCCACGGTGGGGGGGCTCTCTTCCTGGTCCTCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTTAGTGCCCCACTGCAAAGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGGTGACTACATTGGCATCTATGCCAGCATCAAGACAGCAGCACCTTCTCCGGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTCCCCACCCCTCCTGCTCCTGGGGCCCGGCCCTTTTCTCAGAGATCACTCAATAAACC
                                                                                                 Clark
                                                                               Graham
                                                                                                                                                                              2000US-195604P
                                                                                                                                                                                                                        2001WO-US10485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #15
                                                                                                 ΗF,
                                                                                                                                         INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 encoding
                                                                                                                                                                                                                                                                                                                                                                                  antirheumatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cDNA;
                                                                                                   Fechtel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   novel human secreted
                                                                                                 ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽₽
                                                                                                   Agostino
                                                                                                   ጟ
                                                                                                   Howes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein.
                                                                                                                                                                                                                                                                                                                                                                                                                       autoimmune di
cory disorder;
                                                                                                   Resnick
                                                                                                                                                                                                                                                                                                                                                                                                                                              disorder;
                                                                                                   짇
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2748
```

VIH

and Crohn's disease

```
The present invention relates to the isolation of novel cDNA sequences CC which encode human secreted proteins. The cDNA sequences have been CC derived from a variety of human tissues. The invention also provides cCC a method for producing proteins from these polynucleotide sequences. CC The proteins are useful for identifying compounds that modulate their cc cancer in the secreted proteins of the polynucleotide sequences cc encoding the secreted proteins. The sequences of the invention are cuseful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCDD)), autoimmune disorders (e.g. multiple colerosis), blood disorders (e.g. thrombocytopaenia), inflammatory consorders (e.g. arthritis) and infectious disorders (e.g. hepatitis). CC disorders (e.g. arthritis) and infectious disorders (e.g. hepatitis). CC therapy. AAS62214-AAS62838 represent the cDNA sequences of the invention are also useful in gene content in that encode for novel human secreted proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 764 BP; 136 A; 225 C; 229 G; 174 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        asthma,
                    1245
                                                                                      1185
                                                                                                                                                            1125
                                                                                                                                                                                                                                  1065
                                                                                                                                                                                                                                                                                                          1005
                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                       421
                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                              945
                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                  885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             763;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>,,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACT 1064
                                                                                                                                                                                                                                                                                                                                                                                                           GCATCAAGACAGACAGCACCTTCTCCGGGATTTCTGGTGTACTCCGACTGGCACAGCTCCC 944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCA
                                                                                                                       AGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCA 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCTCTCTTGCTGGTCCTCTGCTCTCTGGATCCTCCCCACCCCCCTCCTGCTCCTGGGGC
                                                   AGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTG 1124
                                                                                                                                                                                                                                                                                                                                                                            CAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGT 1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55.4%; Score 763; DB 24; ilarity 100.0%; Pred. No. 1.5e-275; Conservative 0; Mismatches 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     391pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 764;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    704
                                                                                                                                                            1184
                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                      1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          644
                                                   660
                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

γQ 밁 δÃ B Ş 밁 δÃ

밁

밁 Q 밁 Ş 밁 Qy 밁 Qy В Ş

Ş 밁 γQ

밁

Ş 밁 661 CGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTC CGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTC 1347 TGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCTGGGGC 720

763

Search completed: June 21, 2003, 12:53:40 Job time: 373 secs

밁

721

THIS PAGE BLANK (USPTO)

Title: Perfect score: Sequence: Run Minimum DB Maximum DB Scoring table: OM nucleic - nucleic search, using sw model Database : Searched: Total number of hits satisfying chosen Word size Post-processing: Listing first 45 9 :: seq length: 0 length: 2000000000 OLIGO_NUC Gapop 60.0 , June 21, 2003, 11:35:55; Search time 3716 Seconds
(without alignments)
10784.328 Million cell updates/sec US-09-944-944-41 1377 2054640 segs, 14551402878 GenEmbl: * GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd. em_htgo_hum:*
em_htgo_mus:*
em_htgo_other:* em_htg_hum:*
em_htg_inv:*
em_htg_other:* em_ro:* em_sts:* em_pat:*
em_ph:* em_pl: em_ov:* em_or:* em_om: em_mu:* em_in:* em_hum:* em_htg_vrt:* Gapext 60.0 summaries parameters: residues 4109280

Pred. No. is the number of results predicted by chance to have

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result Query Match 100.0 94.8 94.8 82.5 76.3 65.9 53.4 1587 116289 205044 4220 110000 125544 156869 249283 191362 219574 182429 198902 Length B LEIDUT) AF002705) AF469650 AC096324_0 AC095139 AP002888 AC124577 HSM802589 AL691484 AR138218 AR138226 AR138227 AR138227 AR138228 AR138228 AR138216 AR138216 AR138216 AF255795 NCMETADEN AB085669 HSA420600 BC001131 AY119018 BC022272 AC024453 AR137703 AF483742 AK055132 AR138211 AR138212 AR138214 AR138213 AR138211 Sequence AR138212 Sequence AR138213 Sequence AR138213 Sequence AR138213 Sequence AR138215 Sequence AR138225 Sequence AR138227 Sequence AR138227 Sequence AR138226 Sequence AR138227 Sequence AR138227 Sequence AR138226 Rattus muscu AF002705 Rattus no AF469650 Mus muscu AC095139 Rattus no AC095139 Rattus no AC095139 Rattus no AR002588 Homo sapi AC124577 Mus muscu AL162058 Homo sapi AR137703 Sequence AF483742 Ixodes sc AF255795 AL1ium ce AF48742 Ixodes sc AF255795 AL1ium ce AF48742 IXodes sc AF255795 AL1ium capi AR137131 Homo sapi AR137131 Homo sapi AR1119018 Drosophil Description Homo sapi Homo sapi Homo sapi Homo sapi Homo sapi Homo sap Sequence

ALIGNMENTS

AUTHORS	REFERENCE	ONOMNION	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	AX464228	RESULT 1
Baker,K.P., Beresini,M., Deforge,L., Desnoyers,L., Filvaroff,E., Gao,W.Q., Gerritsen,M.E., Goddard,A., Goddwski,P.J., Gurney,A.L., Sherwood,S., Smith,V., Stewart,T.A., Tumas,D., Watanabe,C.K.,	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	human.		AX464228.1 GI:21899130	AX464228	Sequence 361 from Patent WO0140466.	AX464228 1377 bp DNA linear PAT 16-JUL-2002		

```
BASE COUNT
ORIGIN
 Ş
                                   β δ
                                                                                          밁
                                                                                                                            õ
                                                                                                                                                                    밁
                                                                                                                                                                                          S
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
   541
                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1377;
                                                                                                    721
                                                                                                                                   721
                                                                                                                                                                     661
                                                                                                                                                                                                                                    109
                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wood, W.L.
Secreted a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genentech
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                    GCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGT
                                                                                                                     GTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTCTTCCAGTTTTTTCGGGGGGGTG
                                                                                                                                                                                      CCAGGTGCCTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                      CGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                CTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGACTGCGAGAGGACCCCGGCGTCCGGGCTCCCGGTGCCAGCGCTATGAGGCCACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAACTGGAGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGG
                                                                                                    CGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCCCGGGGCTCCGGGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCCGGGCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGGTGACGGCAGGGCAGGGGGGCCCCTGGCCGGGGAGAAGCGCGGGGGCCTGGAGCACCA 120 | 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                   AGGCGAGGGCGGGAGCCGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTCCTGCTGCTGGGCCTGGCGGCCGGCCCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                    CCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                   GGCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCCCGGGGCTCCGGGAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCCACCATGGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTCCTGCTGCTGGGGCCTGGCCGGCTCGCCCCACTGGACGACAACAAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTAGTTCTCTTGGAGTCTGGGAGGAGGAAAGCGGAGCCGGCAGGGAGCGAACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCCGGGCCGCGAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
llarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . and Zhang, Z. and transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
1. .1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
422 c 472 g 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0140466-A 361 07-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (08)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1377;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                   840
                                                                                                   780
                                                                                                                                     780
                                                                                                                                                                     720
                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
AF329841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                    CDS
                                                                                                                                                  gene
                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (CTRP5) mRNA, AF329841
                                                                                                                                                                                                                                                                                                                                           Homo sapiens complement-clq Unpublished
                                                                                                                                                                                                                                                Submitted (20-DEC-2000) Bioinformatics, Eastlake Ave. East, Seattle, WA 98102, Location/Qualifiers
                                                                                                                                                                                                                                                                                                  Sheppard, P.O. and Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AF329841.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF329841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mmalia; Eutheria;
(bases 1 to 1337)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTGCAAAGTGAGCTCATGCTCCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCA
                                                                                                                                                                                                                                                                                                                                 (bases 1 to 1337)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA,
                                  /product="complement-c1q
protein"
                                                                                                    /note="2SIG39"
198. .929
                                                               /gene="CTRP5"
/codon_start=1
                                                                                                                                                                /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
/map="11q23.3"
/protein_id="AAK17965
/db_xref="GI:13274528'
                                                                                                                                                                                                                                    1. .1337
                                                                                                                                     /gene="CTRP5"
                                                                                                                                                    .1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:13274527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1337 complement-clq 1, complete cds.
                                                                                                                                                                                                                                                                                                                 Humes, J.
                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                   <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 bp
                                                                                                                                                                                                                                                                                                                                                                   tumor
                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Catarrhini; Hominidae;
                                                   tumor
                                                                                                                                                                                                                                                                                                                                                                   necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               necrosis
                                                                                                                                                                                                                                                                     USA USA
                                                   necrosis
```

linear PRI 12-MAR-200 factor-related protein

PRI 12-MAR-2001

factor-related

protein

Inc.,

Euteleostomi;

factor-related

BASE ORIGI

COUNT

QΥ

```
Query Match
Best Local S
Matches 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1305;
                                      884
                                                                                                                                       675
                                                                                                                                                                           615
                                                                                                                                                                                             644
                                                                                                                                                                                                                  555
                                                                                                                                                                                                                                                        495
                                                                                                                                                                                                                                                                                               435
                                                                                                                                                                                                                                                                                                                464
                                                                                                                                                                                                                                                                                                                                     375
                                                                                                                                                                                                                                                                                                                                                                          315
                                                                                                                                                                                                                                                                                                                                                                                           344
                                                                                                                                                                                                                                                                                                                                                                                                                                                     195
  944
                     855
                                                           795
                                                                              824
                                                                                                 735
                                                                                                                   764
                                                                                                                                                        704
                                                                                                                                                                                                                                    584
                                                                                                                                                                                                                                                                           524
                                                                                                                                                                                                                                                                                                                                                       404
                                                                                                                                                                                                                                                                                                                                                                                                                 255
                                                                                                                                                                                                                                                                                                                                                                                                                                   284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                             TCGGGGAGCCGGGAGGGGGGACTGCGAGAGGACCCCCGGCGTCCGGGCTCCCGGTGCCAGC
                                                                     GAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACATTGGCATCTATGCC
                                                                                                         GACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGAACGAGCAGGAGAATTACGACGCCCTC
                                                                                                                                                                                                                                                                                                       CCCGGGCCGCGAGGAGAGGCGGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCG
                                                                                                                                                                                                                                                                                                                                               GGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                   CACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGG
                              AGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCC
                                                          GAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCC
                                                                                                ACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCACCGTC
                                                                                                                                                                                                                GACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTC
                                                                                                                                                                                                                                                        GTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCT
                                                                                                                                                                                                                                                                GTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCT
                                                                                                                                                                                                                                                                                             CCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCG
                                                                                                                                                                                                                                                                                                                                    GGGGCTCCGGGAGAGAAAGGCGAGGGGGGGGGACGGGGACTGCCGGGACCTCGAGGGGAC
                                                                                                                                                                                                                                                                                                                                                                         AGGGAGCGAACCAGGACTGGGGTGACGGCAGGGGCAGGGGGCGCCTGGCCGGGGAGAAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGAGCGAACCAGGACTGGGGTGACGGCAGGGGCAGGGGGGCGCCTGGCCCGGGGAGAACCG
                    AGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /translation="MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQ GLPGRDGRDGRDGAPGARGEKGEGGRPGLPGPRGPRGPRGEAGPAGPTGPAGECSVPP RSAFSAKRSESRVPPPSDAPLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVY RASLQFDLVKNGESIASFFQFFGGFFKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIY ASIKTDSTFSGFLVYSDWHSSPYFA"

a 417 c 459 g 226 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1305;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
  1003
                                                                                                                                                                                                                                                                          583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   163
                                     943
                                                          854
                                                                             883
                                                                                                                  823
                                                                                                                                      734
                                                                                                                                                        763
                                                                                                                                                                           674
                                                                                                                                                                                                                                  643
                                                                                                                                                                                                                                                     554
                                                                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                                                                       463
                                                                                                                                                                                                                                                                                                                                                                         374
                    914
                                                                                               794
                                                                                                                                                                                             703
                                                                                                                                                                                                                614
                                                                                                                                                                                                                                                                                              494
                                                                                                                                                                                                                                                                                                                                    434
                                                                                                                                                                                                                                                                                                                                                                                           403
                                                                                                                                                                                                                                                                                                                                                                                                               314
                                                                                                                                                                                                                                                                                                                                                                                                                                 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                   254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
AR138193
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
Š
               밁
                                   Qy
                                                        В
                                                                          Ş
                                                                                               닭
                                                                                                                δÃ
                                                                                                                                     밁
                                                                                                                                                   Ωy
                                                                                                                                                                         밁
                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1004
                                                                                                                                                                                                                 1305;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            975
 344
                    255
                                      284
                                                          195
                                                                            224
                                                                                                135
                                                                                                                                                       104
                                                                                                                 164
                                                                                                                                      75
                                                                                                                                                                           15
                                                                                                                                                                                            44
                                                                                                                                                                                                                                                                                                                                                                                 AR138193
Sequence 1 f
AR138193
AR138193.1
                                                                                                                                                                                                                                                                                                                                                      Unknown.
Unknown.
                                                                                                                                                                                                                                                                               1 (bases 1 to 1347)
Sheppard, P.O. and Humes, J.M.
Adipocyte-specific protein homologs
Patent: US 6197930-A 1 06-MAR-2001;
Location/Qualifiers
1. 1347
                                                                                                                                                                                                                                                                                                                                            Unclassified
                                                                                                                                                                                                                          Similarity
                                                                                                                                    AGGGAGCGAACCAGGACTGGGGTGACGGCAGGGCAGGGGGCGCCTGGCCCGGGGAGAAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGTGCTGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGG
                                                        GACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGCTCTCTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGA 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGCTCTCCTGGTCCTCTGCTTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCCTGGAATATTGTGAATGAC
                    GACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGC
                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                               94.8%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                ω
                                                                                                                                                                                                                                                             /organism="unknown"
421 c 465 g
                                                                                                                                                                                                                                                                                                                                                                                                      from
                                                                                                                                                                                                                                                                                                                                                                                   GI:14479702
                                                                                                                                                                                                                                                                                                                                                                                                     patent
                                                                                                                                                                                                                0;
                                                                                                                                                                                                                          Score 1305;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                      SD
                                                                                                                                                                                                              Pred. No. 0;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                      347 bp
6197930.
                                                                                                                                                                                                                                                                226
                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                                   6;
                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                               PAT
                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                               16-JUN-2001
                                                                                                                                                                                                                Gaps
 403
                                                                                               194
                                                                                                                                                        163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1094
                                      343
                                                                                                                                      134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1063
                   314
                                                          254
                                                                             283
                                                                                                                 223
                                                                                                                                                                          74
                                                                                                                                                                                             103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   974
```

g g Qy

Q

Qy 밁 Qy 밁

₽

4 4 4 4

Дb δ

Š

Ωy 밁 Q D Ş 망 Qy 뫄

ð

20892-2590 Mammalian l Cancer.

Ç Genome

94305

Myers

found

```
RESULT 4
BC029485
LOCUS
DEFINITION
                                                                                                                       1275
                                                                                                                                                                                                                            1244
                                                                                                                                                                                                                                                                                             1184
                                                                                                                                                                                                                                                                                                                              1095
                                                                                                                                                                                                                                                                                                                                                                                                 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               404
BC029485 1370 bp mRNA linear Homo sapiens, Clq and tumor necrosis factor related clone MGC:32938 IMAGE:5278184, mRNA, complete cds.
                                                                                                                                                       CCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCCTCA
                                                                                                                                                                                                                                                                                                                                           GTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGA 1183
                                                                                                                                                                                                                                                                                                                                                                                                                 TAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGCAGGAATGGGAACAGTGGCT 1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCTGGGG
                                                                                                                                                                                                                                                           GTGTGCTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCCACGGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTTGTGAATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCT
                                                                                                                                                                                        GTGCTCTCTCCTGGTCCTCTGCTTCTCTGGATCCTCCCACCCCCTCCTGCTCCTGGGG
                                                                                                                                                                                                                                                                                                                            GTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                               TAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTTCGCCGTCCGATGCCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGGACTGCCGGGACCTCGAGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGGCCCCCCTGGAATATTGTGAATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGTCTTTGCTTAGTGCCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCGGGCCGCGAGGAGGAGGCGGGACCCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCGGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGGCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTCGAGGGGAC
                                                                                                                       1319
                                                                                                                                                     1348
                 protein
                                   PRI 16-MAY-2002
                   Ç
                                                                                                                                                                                                                        1303
                                                                                                                                                                                                                                                           1214
                                                                                                                                                                                                                                                                                           1243
                                                                                                                                                                                                                                                                                                                            1154
                                                                                                                                                                                                                                                                                                                                                                                              1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               374
                                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
SOURCE
ORGANISM
                               망
                                                           QY
                                                                                                  밁
                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
δõ
                                                                                                                                                                     밁
                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 1336; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NTH-MGC Project URL: http://mgc.nci:nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
cDNA Library Preparation: Michael J. Brownstein (NHGRI) & Sh
Toshiyuki and Piero Carninci (RIKEN)
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Gen
Center, Stanford University School of Medicine, Stanford, CA
Web site: http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and My
189
                                   136
                                                                 129
                                                                                                    76
                                                                                                                                    69
                                                                                                                                                                     16
                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 48 Row: h Column: 14
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 14149711.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (01-MAY 2002) National Institutes of Health,
Gene Collection (MGC), Cancer Genomics Office, National
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC029485
BC029485.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Institute,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                   GAGAGGACCCCGGCGTCCCGGGCGCGCGCGCGCTGCCACGCCACTCCTCGTCCTGC
                               AGGGTCCGGAGTAGCGAGCGCCCCGAAGGAGGCCATCGGGGAGCCGGGAGGGGGGGACTGC
                                                                                                                                    CGGCAGGGCAGGGGCGCCTGGCCGGGGGAGAAGCGCGGGGGCTGGAGCACCACCAACTGG
                                                                                                                                                                                                      karyota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
mmalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
(bases 1 to 1370)
                                                                                                                                                                                                                                                                                                                            239
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                       /product="C1q and tumor necrosis factor related protein 5"
/protein_id="AAH29485.1"
/protein_id="AAH29485.1"
/db_xref="G1:20810469"
/translation="MRPLLVLLILGLAAGSPPLDDNKIDSLCPGHPGLPGTPGHHGSR
GLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGPAGECSVPP
RSAFSAKRSESKYPPPSDAPLFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVY
RASLGPDLVXNGESIASFFQFFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGVDYIGIY
ASIKTDSTFSGFLVYSDMHSSPVFA"
a 422 c 475 g 234 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="MGC:32938 IMAGE:5278184"
/tissue_type="Brain, hypothalamus"
/clone_lib="NIH_MGC_96"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/db_xref="LocusID:114902"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note-"Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:20810468
                                                                                                                                                                                                                                                        82.5%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center
                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                        Score 1136; I
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Drive, Room
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cancer Genomics (rive, Room 11A03,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pBluescript"
                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                        4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bethesda,
                                                                                                                                                                                                                                                                        Length 1370;
                                                                                                                                                                                                                                        Indels
```

δÃ B Ş

0

0

195 188 135 128 75

248

밁 δõ 밁 Ş 밁 ΩV В Ϋ́ B Ş В δĀ 뫄 Š 밁 Ş 밁 δ 밁 ρy 밁 δÃ 밁 γQ g δ 뫄

日 Š 밁

ų,

```
QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δõ
                                                                                                                                                               밁
                                                                                                                                                                                   Q
                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                              γQ
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                              ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                  δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                õ
                                                     В
                                                                    δ
                                                                                       밁
                                                                                                         δ
                                                                                                                                밁
                                                                                                                                             δÃ
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                           뫄
                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
Š
                  밁
                                                                                          1096
                                                                                                              1089
                                                                                                                                 1036
                                                                                                                                                  1029
                                                                                                                                                                    976
                                                                                                                                                                                      969
                                                                                                                                                                                                         916
                                                                                                                                                                                                                          909
                                                                                                                                                                                                                                             856
                                                                                                                                                                                                                                                               849
                                                                                                                                                                                                                                                                                 796
                                                                                                                                                                                                                                                                                                  789
                                                                                                                                                                                                                                                                                                                      736
                                                                                                                                                                                                                                                                                                                                        729
                                                                                                                                                                                                                                                                                                                                                           676
                                                                                                                                                                                                                                                                                                                                                                           669
                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                 609
                                                                                                                                                                                                                                                                                                                                                                                                                                   556
                                                                                                                                                                                                                                                                                                                                                                                                                                                    549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                             CCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGC
                                                                                                                                                                                                                                                                                                                                                                  CTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATC
                                                                                                                                                                                                                                                                                                                                                                                            TGCTGGTGAACGAGCAGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTTCTTCCTGGTCCTCTTCCTT
                                                                GGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGCCAGTGTAAGT
                                                                                                     CGTCCTGCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATG
                                                                                                                                                                  AAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCC
                                                                                                                                                                                                                                                                                          CAGCCTCGCTCTCGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGC
                                                                                                                                                                                                                                                                                                                              TGGTGAAGAATGGCGAATCCATTGCCTTTTCTTCCAGTTTTTTCGGGGGGTTGGCCCAAGC
                                                                                                                                                                                                                                                                                                                                                          CTGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGGGAGGCCGGGACTGCCGGGGACCTCGAGGGGACCCCCGGGCCGCGAGGAGGAGGCGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGACGACAACAAGATCCCCAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCAGTGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAAGT
                                                                                         CGTCCTGCTGCCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATG
                                                                                                                                                                                                        CCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGC
                                                                                                                                                                                                                                            AGGTGGGTGTGGGTACTACATTGGCCATCTATGCCAGCATCAAGACAGCAGCACCTTCT
                                                                                                                                                                                                                                                                                 CAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTTGGAGGACCAAGTGTGGGTGC
                                                                                                                                                                                                                                                                                                                     CCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGGGAGGCCGGGACTGCCGGGACCTCGAGGGACCCCCGGGCCGCGAGGAGGAGGCGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGCGATGGCCGCGACGGCGCGCGCGCGCGCGCGCTCCGGGAGAGAAAGGCGAGG
                 CCCACAGTTGCTCTGGTCCAGGAGCCCACGGTGGGTGCTCTCTTCCTGGTCCTCTGCTT
                                    1268
                                                                                                                                                                                     1028
1328
                                                     1215
                                                                        1208
                                                                                          1155
                                                                                                            1148
                                                                                                                               1095
                                                                                                                                                 1088
                                                                                                                                                                   1035
                                                                                                                                                                                                                          968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           308
                 1275
                                                                                                                                                                                                        975
                                                                                                                                                                                                                                            915
                                                                                                                                                                                                                                                               908
                                                                                                                                                                                                                                                                                 855
                                                                                                                                                                                                                                                                                                  848
                                                                                                                                                                                                                                                                                                                      795
                                                                                                                                                                                                                                                                                                                                       788
                                                                                                                                                                                                                                                                                                                                                         735
                                                                                                                                                                                                                                                                                                                                                                          728
                                                                                                                                                                                                                                                                                                                                                                                              675
                                                                                                                                                                                                                                                                                                                                                                                                                899
                                                                                                                                                                                                                                                                                                                                                                                                                                  615
                                                                                                                                                                                                                                                                                                                                                                                                                                                    809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             255
                                                                                                            BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 5
HSM800923
           δõ
닭
                                 B
                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                        Matches 1050;
                                                                                                                    polyA_signal
polyA_site
COUNT 18
                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                source
                 359
61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                                                      187
```

```
B
                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Research Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de; sequenced by MediGenomix (Martinsried/Germany) within the cDNA sequencing consortium of the German Genome Project. This clone (DKFZp586B0621) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059
Berlin-Charlottenburg, GERMANY; Email: clone@tzpd.de Further information about the clone and the sequencing project is available at http://www.mips.biochem.mpg.de/proj/cDNA/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Martinsried, GERMANY
Clone from S. Wiemann,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (15-AUG-1999) MIPS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ottenwaelder, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens mRNA;
AL110261
AL110261.1 GI:581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wiemann, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
AATAAACCTAAGAACCCTCA 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases
                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9666"
/clone="DKFZp586B0621"
/tissue_type="uterus"
/clone_lib="586 (synonym: hutel)
DH10B; sites NotI + Sali/MluI"
                                                                                                                                                                                                           D
                                                                                                                                                                                                                                                        1031. .1036
1049
                                                                                                                                                                                                                                                                                                                                  /product="hypothetical protein"
/protein_id="CAB53702.1"
/db_xref="GI:5817223"
                                                                                                                                                                                                                                                                                                                                                                                    /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                 /note="similarity to
                                                                                                                                                                                                                                                                                                                                                                                                                /gene="DKFZp586B0621"
                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="DKFZp586B0621"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /dev_stage="adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 to 1068)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .1068
                                                                                                                                                                                                                                                                                                                                                                                                                                  .660
                                                                                                                                           76.3%;
100.0%;
                                                                                                                                                                                                         334 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Obermaier, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA
                                                                                                                            0,
                                                                                                                                           Score 1050;
Pred. No. 0;
                                                                                                                                                                                                           349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DKFZp586B0621 (from clone DKFZp586B0621).
                                                                                                                             Mismatches
                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Am Klopferspitz 18a,
                                                                                                                                                                                                                                                                                                                                                                                                   complement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mewes, H.W.,
                                                                                                                                                                                                           198
                                                                                                                                                             DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hute1).
                                                                                                                                                                                                           đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mRNA
                                                                                                                                                         9;
                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                   subcomponent
                                                                                                                                                         Length 1068;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gassenhuber, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pSport1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D-82152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRI 18-FEB-2000
                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                   C1q
                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                   chain
                                 418
                                                              60
                                                                                              358
                                                                                                                                                                                                                                                                                                                                                                                                     ď
                                                                                                                             0
```

```
ACCESSION
VERSION
KEYWORDS
                                                    RESULT 6
AP003396/c
LOCUS
                                                                                                  δ
                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                          日
                                                                                                                                                                                                                                                                                            δδ
P
                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                   닭
                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        Ųγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dβ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                             DEFINITION
                                                                                                                                                                                           1199
                                                                                                                                                                                                                                                              1079
                                                                                                                                                                                                                                                                                                 1019
                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                      961
                                                                                                                                                                         901
                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                     959
                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                           839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               719
                                                                                                                                                                                                                                                                                                                                                                        899
                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                              779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            479
ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
       sequences.
AP003396
AP003396.1
HTG.
                                            Homo
                                                      AP003396
                                                                                                                                                                                                                                           TGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGACCCCGGGCCGCGAGGA
                                                                                                           GAGATCACTCAATAAACCTAAGAACCCTCA 1348
                                                                                                                                              AAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGG
                                                                                                                                                                                                                                                                                        CAGGTCATCCAGGAGGCTGGCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTA 1078
                                                                                                                                                                                                                                                                                                                           TGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACC
                                                                                                  GAGATCACTCAATAAACCTAAGAACCCTCA
                                                                                                                                                                                                                                                                              CAGGTCATCCAGGAGGGCTGGCCCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTA
                                                                                                                                                                                                                                                                                                                   TGCCCACTGCAAAGTGAGCTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAAC
                                                                                                                                                                                                                                                                                                                                                             AGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCCAGTCTTTGCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCCTCCGCCGTCTGACGCACCCTTTGCCC
                                                                                                                                     AAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGG
                                                                                                                                                                                                                                                                                                                                                      AGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCGACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCC
                                            sapiens
                 GI:20302607
                                             genomic
                                           191362
DNA, chr
                                             chromosome
                                                     ģ
                                                                                                  1050
                                            11q
                                           linear PRI 25-APR-2002 clone:RP11-334E6, complete
                                                                                                                                     1020
                                                                                                                                                                                          1258
                                                                                                                                                                                                                          1198
                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                              1138
                                                                                                                                                                                                                                                                                                                                    1018
                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                      958
                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                          898
                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                            838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
      õ
                         밁
                                     Ş
                                                            B
                                                                             Qy
                                                                                                В
                                                                                                             Qy
                                                                                                                                  B
                                                                                                                                                  20
                                                                                                                                                                       밁
                                                                                                                                                                                    Ş
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                         δõ
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 908; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                    source
                          5962
                                                              6022
                                                                                                 6082
                                                                                                                                    6142
                                                                                                                                                                                                                                                                                6382
                                                                                                                                                                        6202
                                                                                                                                                                                                           6262
                                            860
                                                                               800
                                                                                                                  740
                                                                                                                                                      089
                                                                                                                                                                                         620
                                                                                                                                                                                                                                                              500
                                                                                                                                                                                                                                                                                                 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                     zip: 104-0045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hattori,M., Ishii,K.,
Fujiyama,A., Yada,T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens DNA,
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                    yarai@ncc.go.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                             phone: 81-3-3542-2511 ex 4752,
                                   TACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAAT 739
                                                                                                                                                                      GAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTAC
                                                                                                                                                                                                          GAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAAC
                                                                                                                                                                                                                                                      ACCGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCC
         GTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTC
                                                              TACTTCGCCGTCCATGCCACCGTCTACCGGGCCCAGCCTGCAGTTTGATCTGGTGAAGAAT
                                                                                                                                                                                                                            GAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTGAAC
                                                                                                                                                                                                                                                                                GGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGGGGAGGAGGAGGCGGGACCCGCGGGGCCC
                                                                                                                                                                                                                                             ACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCCGATCCGCCTTCAGCGCCAAGCGCTCC
                                                                                                                                                                                                                                                                                                                                                               46535
                                                                                                                                                                                                                                                                                                                 65.9%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                              ø
                                                                                                                                                                                                                                                                                                                                                            /map="11q"
/clone="RP11-334E6"
45977 c 48722 g
                                                                                                                                                                                                                                                                                                                                                                                                                  1. .191362
                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                          Score 908; DB Pred. No. 0;
                                                                                                                                                                                                                                                                                                                  Mismatches
```

Indels

0

Gaps

6323

499

979 5903 6023

6083

799

6143

679

6203 619

```
National Cancer Center Research Institute Cancer Genomic Division 5-1-1, TSUK11, Chuo-ku, Tokyo, JAPAN
                                                                                                                                                                                                                                                                                                                                                                   This work was done in collaboration with Arai, Ohki, M.
                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
Submitted (12-MAR-2001) Masahira Hattori, The Institute of Physi and Chemical Research (RIKEN), Genomic Sciences Center (GSC);
1-7-22 Subhiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Jap (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/Tel:81-45-503-9111, Fax:81-45-503-9170)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens genomic DNA
published Only in Database (2002)
2 (bases 1 to 191362)
Hattori, M., Ishii, K., Toyoda, A.,
Fujiyama, A., Yada, T., Totoki, Y.,
                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone:RP11-334E6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata; Craniata; Vertebrata; Primates; Catarrhini; Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Toyoda, A., Totoki, Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (2002)
                                                                    50128
                                                                                                                                                                                                                                                               fax: 81-3-3542-0688 e-mail:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Taylor, T. Watanabe,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Taylor, T.D., Hor Watanabe, H. and
                                                                  đ
    9;
Length 191362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
Н.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Institute of Physical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hong-Seog, P., and Sakaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hong-Seog, P., and Sakaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                         Kubo, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo
                                                                                                                                                                                                                                                                                                                                                                                           and
```

e-mail:

0;

Gaps

0

499

209061

```
JOURNAL REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AP002956/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5902
                                                                                                                                           Published Only in Database (2002)
2 (bases 1 to 219574)
                                                                                                                                                                                                                                                                                                Hattori,M., Toyoda,A., Taylor,T.D., Fuj. Totoki,Y., Watanabe,H. and Sakaki,Y. Homo sapiens 219,574 genomic DNA of 11q
                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens genomic DNA, chromosome
                                                                                                           stSG31054, sts-X57110, WI-8978, GDB:198117, stSG29284, SHGC-130657, D11S1941E, WI-14589, stSG60191, stSG50535, A002048, stSG26946,
                                                                                                                                                                                                                                           Direct Submission
                                                                                                                                                                                                                                                   Hattori,M., Toyoda,A., Taylor,T.D., Totoki,Y., Watanabe,H. and Sakaki,Y.
                                                                                                                                                                                                                                                                                                                                                   Eukaryota;
Mammalia; 1
                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                    HTG
                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AP002956
                        Arai,Y., Kubo,T.,Ohki,M.
National Cancer Center Research
                                                Additional author
                                                           non-AGCT bases: none
                                                                         Contamination: none
                                                                                   TIGR-A005D38, Bdaa7g02, D11S869E,
                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                              AP002956.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCCACCCCTCCTGCTCCTGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATTTCTGCCCAAGACCAGAGGGGGGGGGTGTGCTGCTGCTGCAAGTCCCCCCAGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACCAGGTCATCCAGGAGGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCACCCCTCCTGCTCCTGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGGCAAGTGTAAGTCCCCCAGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGG
Genomic Division
Tsukiji, Chuo-ku,
                                                                                                                                                                                                                                                                                                                                                     Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5475
                                                                                                                                                                                                                                                                                                                                                             Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                               GI:22255355
                                                                                                                                                                                                                                                                                                                                                                                      DNA, clone:R1105h09
                                               information
                                                                                                                                                                                                                                                                                                                                                   Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             219574 bp
Tokyo,
                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
  JAPAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA
                                                                                                                                                                                                                                                                Fujiyama, A.,
                                                                                                                                                                                                                                                                                                                          Fujiyama,A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 11q
                                                                                                                                                                                                                                                                                                                                                                                                                                               linear PRI 15-AUG-2002 clone:R1105h09, complete
                                                                                                                                                                                                                                                                 Yada, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1219
                                Q
                                                                               ρ
                                                                                                         В
                                                                                                                              ρ
                                                                                                                                                       밁
                                                                                                                                                                             Q
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                    먕
                                                                                                                                                                                                                                                                                                                         ρ
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω<sub>V</sub>
                                                           밁
                                                                                                                                                                                                                                                     맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 908;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                        208580
                                                                                                                                                                                                                                                                                                    208700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              208940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           209060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         209120
                                                                                                           208460
                                                                                                                                                         208520
                                                                                                                                                                                                                                                     208640
                                                                                                                                                                                                                                                                                                                                                   208760
                                                                                                                                                                                                                                                                                                                                                                                                 208820
                                                                                                                                                                                                                                                                                                                                                                                                                                                 208880
                                                                                                                                                                               1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        920
                                                                                                                                                                                                                                                                                                                                                                          800
                                                                                                                                                                                                                                                                                                                                                                                                                        740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              yarai@ncc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     zip: 104-0045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATCCT 1279
                                                                        GGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAAGTCCCCCAGTTGC
                                                                                                                                                                    CCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCCGTCCTGCTGC
                                                                                                                                                                                                       TACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCC
                                                                                                           TGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCT
                                                                                                                                 TGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCT
                                                                                                                                                         CCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGC
                                                                                                                                                                                                                             ATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGCTGG
                                                                                                                                                                                                                                                                            GTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTC
                                                                                                                                                                                                                                                                                                    GAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          +81-3-3542-2511 ex4752,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /map="11q"
/clone="R1105h09"
50356 c 53844 /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .go.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 908;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fax:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           +81-3-3542-0688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 219574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
```

859

208761

208701

799

208821

739

679

208943

208881

619

559

209003

1219

20840

20846: 1099 1039

208581

208521

Ş 밁 ρy

밁

```
JOURNAL REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 8
AP001557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      208220 GAACCCTC 208213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             208280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1340
                                                                                                                                                                                                21 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Jap (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9171) Tel:81-45-503-9171, Fax:81-45-503-9170) On Nov 3, 2000 this sequence version replaced gi:8117391.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (bases 1 to 182429)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hon
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and
Homo sapiens 182,429 genomic DNA of 11q23
Published Only in DataBase (2000)
Published Only in DataBase (2000)
Dates 1 to 182429)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hon
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and
                                                                                                                                                                        preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AP001557 182429 bp DNA
Homo sapiens chromosome 11 clone RP11-680A7
                                                                                                                                                                                                                                                          NOTE: This is a 'working draft' sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and Chemical Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (29-MAR-2000) Masahira Hattori, The Institute of Physical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AP001557.3 GI:11094164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAACCCTC 1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           soon as it is available and
                                                                                                                                                                                                                                                                                                 Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of Assembly program: Phrap; version 0.990329 Consensus quality: 175597 bases at least Q30 Consensus quality: 178555 bases at least Q30 Consensus quality: 179568 bases at least Q30 Insert size: 180429; sum-of-contigs
                                                       84149
95278
107864
119158
                                                                                                                                                                                                                                                                                      Quality coverage: 9.01x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                   Center project name: HumDraft Center clone name: RP11-680A7
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web site: http://hgp.gsc.riken.go.jp/
Contact: hattori@gsc.riken.go.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center code: RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center: RIKEN Genomic Sciences Center(GSC)
                                                                                                               30208
54458
69940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens DNA, clone:RP11-680A7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HTGS_PHASE1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eutheria;
                                                                                   95177
107763
                                                                         119057
                               L45887
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Project
                                                                                                                 84048
                                                                                                                                69839
                                                                                                                                                            30107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HTGS_DRAFT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                              contig
                                                                                                                                            contig
                                                                                                                                                         contig
                             conti
                                                                      contig
                                                                                    conti
                                                                                                  contig
                                                                                                                 contig
                                            cont
                                                        contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (RIKEN),
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Information
                                                                                                                                                                                                                                                                                                                                                                                                                                     HumDraft11
00000000000
                                                                                                                                                                                     the accession number will be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genomic Sciences Center (GSC)
                                                                                                                                30107
24150
15382
8884
7212
6266
                                                       8977
                                            8669
 $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $
 'n
                                                                                                                                                                                                                                                          It currently consists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                           length
length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 map 11q23,
                          length
length
length
length
length
length
             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hong-Seog, P., and Sakaki, Y.
                                                                                                                                                                                                                                                                                                                                                                             reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          230-0045, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HTG 03-NOV-2000
                                                                                                                                                                                                   FEATURES
                                        misc_feature
                                                                      misc_feature
                                                                                                  misc_feature
                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181019 182429 contig of 1411 bp in length.
NOTE: This is a 'working draft' sequence. It current consists of 21 contigs. The true order of the pieces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30107: contig of 30107 bp in length
30108 30207: gap of 100 bp
30208 54357: contig of 24150 bp in length
54358 54457: gap of 100 bp
54458 69839: contig of 15382 bp in length
69840 69939: gap of 100 bp
69940 84048: contig of 14109 bp in length
84049 84148: gap of 100 bp
84049 95177: contig of 11029 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172862
175706
178409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               159666
163681
165253
167002
170561
                                                                                                                                                                                                                                                                                                                                                                                                                     163681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   107764 107863:
                                                                                                                                                                                                                  181019
                                                                                                                                                                                                                                                                                   175606 175705:
                                                                                                                                                                                                                                                                                                                 172762 172861:
                                                                                                                                                                                                                                                                                                                                                                                                                                    163581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    145888 145987:
                                                                                                                                                                                                                                                          178309 178408:
                                                                                                                                                                                                                                                                                                                                               170461 170560:
                                                                                                                                                                                                                                                                                                                                                            167002
                                                                                                                                                                                                                                                                                                                                                                          166902 167001:
                                                                                                                                                                                                                                                                                                                                                                                                      .65153 165252:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36904 137003: gap of 37004 145887: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .19058 119157:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28135 128234: gap of 100 bp
28235 136903: contig of 8669 bp
                                                                                                                                                                                                                              80919 181018:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               59566 159665:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          149 95177: contig of 11029 bp
178 95277: gap of 100 bp
178 107767: contig of 12486 bp
                                                                    /note="assembly_fragment"
30208. .54357
                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                 Location/Qualifiers
                          'note="assembly_fragment"
                                                    note="assembly_fragment"
                                                                                                            clone="RP11-680A7"
                                                                                                                                                                                                                                                                                                                                                                                                                                  163680:
                                                                                                                                                                                                                                                                                         175605; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                المرد : gap of
159565: ما
1646
                                                                                                                                                                                                                                                                         178308:
                                                                                                     30107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              119057: contig of 111947
3157: gap of 100 bp
128134: contig of 8977 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /863: gap of
119057: cont
                                                                                                                                                                                                                                          8408: gap of 100 |
80918: contig of 2510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    987: gap of 100 bp
53199: contig of 7212 b
                                                                                                                                                                                                                                                                                                                                                                                                                      65152:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   63580:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180918 contig of
                                           .69839
                                                                                                                                                                                                                                                                   gap of 100 1
8: contig of 2603
                                                                                                                                                                                                                                                                                                                                                                        gap of
                                                                                                                                                                                                                                                                                                                                                                                                   gap of
                                                                                                                                                                                                                              gap of
                                                                                                                                                                                                                                                                                                                                            gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                 gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                            gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 contig of contig of contig of contig of contig of contig of contig of contig of contig of
                                                                                                                                                                                                                                                                                              contig of 2
                                                                                                                                                                                                                                                                                                                             ap of 100 bp
contig of 2201 bp
                                                                                                                                                                                                                                                                                                                                                      contig of 3459
                                                                                                                                                                                                                                                                                                                                                                                contig of 1649 bp
                                                                                                                                                                                                                                                                                                                                                                                                             contig of 1472 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                           contig of 3915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig of 6266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contig of 8884
                                                                                                                                                                                                                contig of 1411
                                                                                                                                                                                                                                                                                                  100 bp
2744 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dq 00
                                                                                                                                                                                                                                                                                      00 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dq 00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3915 bp
1472 bp
1649 bp
3459 bp
2201 bp
2744 bp
2603 bp
2510 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ) bp
1029 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                đđ
                                                                                                                                                                                                                                                                       đđ
                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                     þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ni dq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bp in length
                                                                                                                                                                                                                                           in length
                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                    'n
                                                                                                                                                                                                                                                                                                                                in
                                                                                                                                                                                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                                                                                                                                                                                                                     in
                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                            in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in length
                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length.
It currently
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
```

```
밁
                                                                 Qy
                                                                                                              δõ
                                                                                                                                       밁
                                                                                                                                                               Q
                                                                                                                                                                                            밁
                                                                                                                                                                                                               Ωy
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
ORIGIN
                  δ
                                                                                            밁
 밁
                                                                                                                                                                                                                                                                                                                                                                                          Matches 906;
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                           108073
                                                                                                                                                                                                                                                                                                                                          108013
                                                                                                                                             108252
                                                                                                                                                                                             108193
                                                                                                                                                                                                                                           108133
                                                                                                                                                                                                                                                                                                                  500
                                                                                                                                                                                                                                                                                                                                                     440 GGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGAGGAGAGGCGGGGACCCGCGGGGCCCC
                                                                                            GAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTAC
                                                                                                                                                                                                                                                      GAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGGTCAAC
                                                                                                                                                                                                                                                                                          ACCGGGCCTGCCGGGGGAGTGCTCCGGTGCCTCCGCCTTCAGCGCCAAGCGCTCC
                                                                                                                                                                                                                                                                                                                                         GGACTGCCGGGACCTCGAGGGGACCCCCGGGCCGAGGAGGAGGCGGGACCCGCGGGGCCC
 GGTGACTACATTGGCATCTATGCCAGCATCAAGACAGCACCACCTTCTCCGGATTTCTG
            GGTGACTACATTGGCATCTATGCCAGCATCAAGACAGCACCACCTTCTCCCGGATTTCTG
                                                                    TACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAAT
                                                                                                                                                                                           GAGCA-GGACATTACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTAC
                                                                                                                                                                                                                                          GAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAAC
                                                                                                                                                                                                                                                                                                                 ACCGGGCCTGCCGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     45724
                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   y5278. .107763
/note="assembly_fragment"
107864. .119057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-"assembly_fragment" 159666. .163580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="assembly_fragment"
95278. .107763
                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_fragment"
42083 c 43875 g 48747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="assembly_fragment"
175706. .178308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_fragment"
172862. .175605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="assembly_fragment clone_end:T7 vector_side:left"
165253. .166901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
181019. .182429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   178409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                153300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      145988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        128235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note-"assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment"
137004. .145887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                   53.4%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "assembly_fragment clone_end:SP6 vector_side:left"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .16515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .136903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .170460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .163580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .153199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .180918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .159565
                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                    Score 736;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                               2;
                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000
                                                                                                                                                                                                                                                                                                                                                                                                               Length 182429;
                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    others
                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                   739
                                                                                                                                                                                                                   679
                      919
                                                                    859
                                                                                                                    799
                                                                                                                                                                                                                                                                  619
                                                                                                                                                                                                                                                                                                                                                                 499
108493
                                                                                            10837
                                                                                                                                             108311
                                                                                                                                                                                           108251
                                                                                                                                                                                                                                                                                          108132
                                                                                                                                                                                                                                                                                                                 559
                                                                                                                                                                                                                                                                                                                                         108072
                                             108431
                                                                                                                                                                                                                                          108192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            БР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
```

```
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 9
AP001156
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
SOURCE
                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     108492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    108852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    108792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108672
                                                                                                                                                                                                                                                  Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 198902)

88 Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P.,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y.
Homo saplens 198,902 genomic DNA of 11q23

81 Published Only in DataBase (2000)

82 (bases 1 to 198902)

82 (bases 1 to 198902)

83 Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P.,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y.

Direct Submission

84 Submitted (10-FEB-2000) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);

85 Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-855,
Japan (E-mail:hattori@gsc.riken.go.jp,
URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923,
Fax:81-42-778-9924)

On May 31, 2000 this sequence version replaced gi:6997842.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens chromosome 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AP001156.2 GI:8118724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DRAFT SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AP001156
CCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACCCTC 108919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAACCCTC 1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCTGGTCATCCAGGAGGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCCACTGCAAAGTGAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCCACCCCCTCCTGCTCCTGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAA 108911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTGGTCCAGGAGCCCACGGTGGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTTGCTCCTCCTCTCTTCTCTGGATCCT 1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTCTGGCAAGTGTAAGTCCCCCAGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCCACCCCCTCCTGCGCGCCCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAA 1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTGGCCT
                                                                                                                                                                                             Center: RIKEN Genomic Sciences Center(GSC) Center code: RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HTGS_PHASE1; HTGS_DRAFT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens DNA, clone:RP11-657A24.
                                                                                                                                                                                                                                         Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            42 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    198902 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02 bp DNA linear HTG clone RP11-657A24 map 11q23,
                            reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WORKING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    108851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   108551
```

```
Sequence updated (26-May-2000).
* NOTE: This is a 'working draft' sequence. It currently
* consists of 42 contigs. The true order of the pieces
* is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NOTE: This is a 'working draft' sequence. It currently consists of 42 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      as soon
                                                                                                  arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                   as
be
20627: contig of 20627 bp in length
20628 20727; gap of
20728 31817: contig of 11090 bp in length
31818 31917: gap of
31918 41131: contig of 9214 bp in length
41132 41231: gap of
41232 49745: contig of 8514 bp in length
49746 49845: gap of
49846 59457: contig of 8612 bp in length
                                                                                                                                                                  178015
179976
181705
184052
186028
187971
189692
191270
192628
194389
195759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Consensus quality: 171788 bases at least Q40 Consensus quality: 184443 bases at least Q30 Consensus quality: 191295 bases at least Q20 Insert size: 194802; sum-of-contigs Quality coverage: 4.12x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                             148024
152562
155545
158822
163004
                                                                                                                                                                                                                                                                                                                                                                                                                    74071
81108
87421
93351
98066
103042
                                                                                  preserved
                                                                                           soon as it is available and the
                                                                                                                                                                                                                                                                                                                                                                                                   18884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31918
41232
49846
59558
66905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      as it is available and the
59457:
                                                                                                                                                                           195658 conti
197707 conti
                                                                                                                                                                   198902 conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20627
31817
41131
49745
59457
                                                                                                                                                                                            conti
conti
conti
                                                                                                                                                                                                                                                                                                                                                                                         conti
                                                                                                                                                                                                                                                conti
                                                                                                                                                                                                                                                                                                                                                               conti
                                                                                                                                                                                                                                                                           cont
                                                                                                                                                                                                                                                                                                             cont
                                                                                                                                                                                                                                                                                                                                      Conti
                                                                                                                                                                                                                                                                                                                                                                                                                     conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                      conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          conti
                                                                                                                                                                   1843
1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     accession number will be
                                                                                           accession
                                                                                                                                                                  length
                                                                         length
                                                                                                                                                                 length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
length
                                                                                                                                                                                                                                                                                                                                                                                length
length
length
length
length
length
length
length
length
length
length
length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ength
                                                                                           number
```

```
195658: gap of 195758: gap of 195759 197707: ccm*'
                                                                                                                                                                                                169852 169851: contig of 1
169852 169951: contig of 30
169952 172048: con+1
172049 172140
                                                                                                                                                                                                                                                                                 152461: gap of 152461: contig 152462 152561: gar 152562
                                                                               189592 189691
                                                                                               187871
                                                                                                             185928 186027
                                                                                                                                                                                                                                                                                                                       144028 144127
                                                                                                                                                                                                                                                                                                                                       140586 140685:
                                                                                                                                                                                                                                                                                                                                                                          124242 124341: gap of 124342 129766: cont
                                                                                                                             83952
                                                                                                                                                        79876 179975:
                                                                                                                                                                                     75333 175432:
                                                                                                                                                                                                                                                                                                                                                                                         18784 118883: gap of 18884 124241: contig
                                                                                                                                                                                                                                                  62904 163003:
                                                                                                                                                                                                                                                                                                                                                        35474
                                                                                                                                                                                                                                                                                                                                                                    29767 129866:
                                                                                                                                                                                                                                                                                                                                                                                                               13392 113491:
                                                                                                                                                                                                                                                                                                                                                                                                                         09118
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 93350: gap of 10
1 97965: contig of 4
6 98065: gap of 10
6 102941: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 81107: gap of
8 87320: contig
1 87420: gap of
                                       192527: contig of
192627: gap of
194288: contig of
                                                                                                                                                             178014: gap of 100 1
179875: contig of 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66904: gap o
                                                                                              187970:
                                                                                                                                                                                                                                                                                                                                               135573: gap of 140585: cont
                                                                                                                            184051:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87420: gap or 93250: contig of
                                                                 191269:
                                                                                                                                                                                                                                                  10,
158821: contig of 317
158821: gap of
162903: cc-'
                                                                                                                                                                                                                                                                            155544: gap
                                                                                                                                                                                                                                                                                                                                                                                                                                       103041: gap of 
109017: cont:
                                                                                                                                           181704:
                                                                                                                                                                                                                                                               158821
                                                                                                                                                                                                                                                                                                                                                                                                                        109117: gap of
113391: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74070: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59557:
                                                                                                                                                                                                                                                                                                                            144027: conti
                                                                                     17970: gap of
189591: contig of
                                                                                                                                                                                                                                                                                                                                                       135473: cc 5573
                                                                                                                                                                                                                                                                                                                                                                                                  Jap of 118783: CC 9883
                                                                                                    34051: gap of
185927: contig of
36027: gap of
17870: contig of
                                                                                                                                                                                                                                                                                                               .4127: gap of 100 k
147923: contig of 3796
                                                                                                                                                                                                                                     162903: contig of 4082
3003: gap of 100 l
166121: contig of 3118
5221: gar of
                                                                      )691: gap of
191169: contig of
                                                                                                                                  .704: gap of
183951: contig of
                                                                                                                                                1975: gap of 
181604: contig of
                                                                                                                                                                              3432: gap of 100 1
177914: contig of 2482
                                                                                                                                                                                            2148: gap of
175332: contig
                                                                                                                                                                                                                                                                                   2561: gap of . 100 r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66804:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap
                                                                 gap of
                                                                                                                    contig of 1876
                                                                                                                                                                                                      contig of 2097 bn
                                                                                                                                                                                                                                                                                                  contig
                                                                                                                                                                                                                                                                                                                               contig of 3342
                                                                                                                                                                                                                                                                                                                                                        contig of 5607 bp
                                                                                                                                                                                                                                                                                                                                                                          contig of 5425
                                                                                                                                                                                                                                                                                                                                                                                                                      contig of 4274
                                                                                                                                                                                                                                                                                                                                                                                                                                    ap of 100 l
contig of 5976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           p of 100 bp contig of 7066 l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig
p of
                                                                                                                                                                                                                                                                                                                                                                                                       contig of
                                                                                                                                                                                                                                                                                                                                              contig
                                                                                                                                                                                                                                                                                                                                                                                          of 5358
             of.
                                                                                                                                                                                               of.
                                                                                                                                                                                                                                                                                                   of
                                                                                                                                                                                                                                                                                                                                               of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 bp
of 6213 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of
                                                       100 bp
[ 1843 bp
100 bp
[ 1621 bp
100 bp
100 bp
100 bp
[ 1478 bp
100 bp
1258 bp
                                                                                                                                                                                              100 t
                                          100 t
                                                                                                                                  2247
                          100 k
                                                                                                                                                  1629
                                                                                                                                                                                                                           3630
                                                                                                                                                                                                                                                                                                                                              100 bp
5012 bp
                                                                                                                                                                                                                                                                                                                                                                                                         5292
                                                                                                                                                                                                                                                                                                     4438
                    100
                                                                                                                                                                                                                                                                                                            100
                                                                                                                             8
                                                                                                                                                                                                                                                                     )0 bp
177 bp
                                                                                                                                                                                                                                                                                                                                         8
                                                      ر م م
                                                                                                                 dq 2
                                                                                                                                                              dq
dd
                                                                                                                                                                             gg,
                                                                                                                                                                                           dd
dd '
                                  ည်
နှစ်
နှစ်
                                                                                                                                                                                                                                                                                                                 bp
6 bp in
                    ďď
                                                                                                                                                                                                                                                                                                                                       ďď
                                                                                                                                                                                                                                   ģ
                                                                                                                                                                                                                                                                                            ф
                                                                                                                                                                                                                                                                                                                                                                                                                 ģ
           ф
                          ģ
                                                                                                                                   đđ
                                                                                                                                                  đ
                                                                                                                                                                                                             þ
                                                                                                                                                                                                                           đđ
                                                                                                                                                                                                                                         đđ
                                                                                                                                                                                                                                                        đq
                                                                                                                                                                                                                                                                                     ďď
                                                                                                                                                                                                                                                                                                   đđ
                                                                                                                                                                                                                                                                                                                                ďď
                                                                                                                                                                                                                                                                                                                                              đđ
                                                                                                                                                                                                                                                                                                                                                                           đđ
                                                                                                                                                                                                                                                                                                                                                                                          bp in
                                                                                                                                                                                                                                                                                                                                                                                                         đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ďď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ģ
                                                                                                                                                                                                                                                                                                                                                             bp in
                                                                                                                                                                                                                                                                                                                                                                                                                        bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                       bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bp in
             ä
                            'n
                                          'n
                                                          'n
                                                                        'n
                                                                                       Ħ
                                                                                                     in
                                                                                                                     'n
                                                                                                                                    'n
                                                                                                                                                   'n
                                                                                                                                                                 'n
                                                                                                                                                                                ä
                                                                                                                                                                                                             in
                                                                                                                                                                                                                           in
                                                                                                                                                                                                                                           in
                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                      in
                                                                                                                                                                                                                                                                                                                                 in
                                                                                                                                                                                                                                                                                                                                                                            'n
                                                                                                                                                                                               in
                                                                                                                                                                                                                                                        in
                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                         in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in
                                                                                                                                                                                                                                                                                                                                               İ'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in
            Length
                                         length
                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                             length
                           length
                                                          length
                                                                        length
                                                                                       length
                                                                                                     length
                                                                                                                    length
                                                                                                                                   length
                                                                                                                                                  length
                                                                                                                                                                 length
                                                                                                                                                                                length
                                                                                                                                                                                                            length
                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
```

Member

from Each

Washington Missouri 63108,

USA

ö

```
B. 정
                 LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                  RESULT 10
HUMZD92F04
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Дb
                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Simi
Matches 612;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                     194989
                                                                                                                                                                                                                                                                                                                                                            194809
                                                                                                                                                                                                                                                                                                                                                                                                                              194749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               194689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 194569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   194449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1215
                                                                                                                                                                                                                                                                                                                                                                                             1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens full length AF086482 AF086482.1 GI:3483827 FLI_CDNA.
                                                               HUMZD92F04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGGCCTGAGGACCAAGTGTGGGTGCAGGTGG
                                                                                                                                                                   CCTAAGAACCCTC 1347
                                                                                                                                                                                                                                                                                                          GTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGG 1274
                                                                                                                                                                                                                                                                                                                                                                           TGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGTGCTGGCAAGTGTAAGTCCCCCA 1214
                                                                                                                                                                                                                                                                                                                                                                                                                         GCTGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAG 194808
                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTGCTGGCAAGGAATGGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCTCTCGGGGGGGCCATGGTGAGGCTGGAGGACCAAGTGTGGGTGCAGGTGG
                                                                                                                                                     CCTAAGAACCCTC
                                                                                                                                                                                                                                    ATCCTCCCCACCCCTCCTGCTCCTGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAA 1334
                                                                                                                                                                                                                                                                                       GTTGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTCATGCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTG
                                                                                                                                                                                                                      ATCCTCCCCACCCCTCCTGCTCCTGGGGCCGGCCCTTTTCTCAGAGATCACTCAATAAA 19498
                                                                                                                                                                                                                                                                                                                                                          TGGCTGGATTTCTGCCCAAGACCAGAGGAGTGTGCTGCTGCTGGCAAGTGTAAGTCCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="assembly_fragment clone_end:SP6 vector_side:right"
41232. .49745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="assembly_fragment"
31918. .41131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
20728. .31817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /map="11q23"
/clone="RP11-657A24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .198902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              198902: contig of 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40.8%;
                                                                                                                                                     195001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 562; DB 2; Length 198902; Pred. No. 9.7e-291;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                  insert
                                                                 441
                                                               dd
                                                 cDNA clone
                                                               mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                 ZD92F04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1154
                                                                                                                                                                                                                                                                                                                                                            194868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   854
                                                                                                                                                                                                                                                                                         194928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  194508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                         γģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                 망
                                                                                                                                                                            Ω
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                Q
                                        δ
                                                                               В
                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                          Matches 432;
                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                  1097
                                                                                                                                                                                   1037
                                                                                  181
                                                                                                                                                   121
                                                                                                                                                                                                                                      977 CTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGC
                                                                                                                                                                                                                                                                                                       917 CTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAG
                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                         NOTICE: This sequence represents the full insert of this cDNA. No attempt has been made to verify whether this corresponds to the full-length of the original mRNA from which it was derived. We have tried to obtain double-stranded, or double chemistry sequence across the entire clone, but potentially, there are areas in the sequence where this level of coverage was not achieved. Nevertheless, we are confident of the accuracy of this sequence as all regions of low quality, as defined by PHRAP (P. Green, in preparation), were visually inspected and edited accordingly. The consensus quality values for this sequence have been submitted separately.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutherla; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 441)
Woessner, J., Tan, F., Marra, M., Kucaba, T., Yandell, M., Martin, J., Marth, G., Bowles, L., Wylie, T., Bowers, Y., Steptoe, M., Theising, B., Geisel, S., Allen, M., Underwood, K., Chappell, J., Person, B., Gibbons, M., Harvey, N., Pape, D., Chamberlain, A., Morales, R., Schurk, R., Ritter, E., Kohn, S., Swaller, T., Behymer, K., Hillier, L., Wilson, R. and Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Department of Genetics
Washington University
St. Louis MO 63108, USA
http://genome.wustl.edu/gsc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (24-AUG-1998) Department of Genetics, University, 4444 Forest Park Avenue, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 (bases 1 to 441) Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mailto:est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED BY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unigene Cluster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Full Clone Sequencing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                          Similarity
                             CTGGTGTACTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAG
                                                                                                TGCTGGCAAGGAATGGGAACAGTGGCTGTCTGCGATCAGGTCTGGCAGCATGGGGCAGTG
                                                                                                                                                                     TGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCCGTCCTGC
                                                                                                                                                                                                                    CTCATGCTCTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACCAGGTCATCCAGGAGGGC
                                                                                                                                                   TGGCCCCCTGGAATATTGTGAATGACTAGGGAGGTGGGGTAGAGCACTCTCCGTCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           location of this clone is unknown.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                            88
                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="IMAGE:356959"
/clone_lib="Soares_fetal_heart_NbHH19W"
127 c 126 g 100 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                        31.4%;
                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                        Score 432; DB 9; L
Pred. No. 8.4e-221;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of the Longest Available
                                                                                                                                                                                                                                                                                                                                                                                        DB 9;
                                                                                                                                                                                                                                                                                                                                                                                        Length 441;
                                                                                                                                                                                                                                                                                                                                                          Indels
```

0;

Gaps

0;

1156

240

300

1096

180

```
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (bases 1 to 173038)

1 (bases 1 to 173038)

Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong'Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y. Homo sapiens 173,038 genomic DNA of 11q23

Published Only in DataBase (2000)

2 (bases 1 to 173038)

Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y.

Direct Submission, Totoki,Y., Watanabe,H. and Sakaki,Y.

Direct Submission, Masahira Hattori, The Institute of Physical Submitted (05-JAN-2000) Masahira Hattori, The Institute of Physical
                                                                                                                                                                                                                                                NOTE: This is a 'working draft' sequence. It currently consists 28 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the
                                                                                                                                                                                                      contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fax:81-42-778-9924)
On May 31, 2000 this sequence version replaced gi:6997762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Japan (E-mail:hattori@gsc.riken.go.jp,
URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923,
Fax:81-42-778-9924)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and Chemical Research (RIKEN), Genomic Kitasato Univ., 1-15-1 Kitasato, Sagami
                                                                                                                                                            preserved
                                                                                                                                                                                                                                                                                                                                     Center project name: Humbraftll
Center clone name: RP11-680C5
Center clone name: RP11-680C5
Sequencing vector: PCR products; 100% of reads
Chemistry: Dye-terminator ET-amersham; 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 149676 bases at least Q40
Consensus quality: 160868 bases at least Q30
Consensus quality: 167161 bases at least Q20
Insert size: 170338; sum-of-contigs
Quality coverage: 4.33x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AP00100
                                                                                                                                                                                      as soon as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mammalia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AP001003.2 GI:8117674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAAGAACCCTCA 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAAGAACCCTCA 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCTCTGGTCCAGGAGCCCACGGTGGGGTGCTCTCTTCCTGGTCCTCTGCTTCTCTGGAT 1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Web site: http://hgp.gsc.riken.go.jp/
Contact: hattori@gsc.riken.go.jp
Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center: RIKEN Genomic Sciences Center(GSC)
Center code: RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             173038 bp DNA linear HTG 30-MAY sapiens chromosome 11 clone RP11-680C5 map 11q23, WORKING SEQUENCE, 28 unordered pieces.
                                            15659
33790
47533
63493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HTGS_PHASE1; HTGS_DRAFT.
sapiens DNA, clone:RP11-680C5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eutheria;
                                              15558
33689
47432
63392
74234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genome Center
                                                                                                                                                                                    available and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
contig of contig of contig of contig of contig of contig of contig of contig of contig of
                                                                                                                                                                                    the accession number will be
                                                                                           15558
18031
13643
                                              15860
10742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 anomic Sciences Center (GSC);
Sagamihara, Kanagawa 228-8555,
99999999
                                                                                                                in
    in
in
                                                                   iii
length
length
length
length
length
length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                 of.
```

COMMENT

REFERENCE AUTHORS

JOURNAL REFERENCE

TITLE

AUTHORS

JOURNAL

ACCESSION VERSION KEYWORDS SOURCE

밁 γQ 밁 γ 밁 Š

AP001003 Locus

```
171826 173038 contig of 1213 bp in length
Sequence updated (26-May-2000).
* NOTE: This is a 'working draft' sequence. It currently
* consists of 28 contigs. The true order of the pieces
* is not known and their order in this sequence record is
* arbitrary. Gaps between the contigs are represented as
* runs of N, but the exact sizes of the gaps are unknown.
* This record will be updated with the finished sequence
* as soon as it is available and the accession number will
* be preserved.
                                                                                                                                                                                                                                                                                                                                                                              1558: contig of 1558 bp in length
1559 15658: gap of 100 bp
15659 33789: gap of 100 bp
33790 47432: contig of 13643 bp in length
47433 47532: gap of 100 bp
47533 63492: gap of 100 bp
63493 7424: contig of 15860 bp in length
63393 63492: gap of 100 bp
63493 7424: contig of 10742 bp in length
7425 74334: gap of 100 bp
7435 8557: contig of 10742 bp in length
7435 85492: gap of 100 bp
65498 7434: gap of 100 bp
65498 85492: gap of 100 bp
6558 8547: gap of 100 bp
                                                          153716 153815;
153816 157273
157274 157373;
                                                                                                                                                                                                                         132136: a== 13237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16184
                                                                                                                                                                                                                                                                                                      110023 110122: gap of 100 bp
110123 118116: contig of 7994 bp
                                                                                                                                                                                                                                                                                                                                  101984 102083: gap of 102084 110022: cont
                          159818
159918
                                                                                                                150447 150546:
                                                                                                                                           147573 147672:
                                                                                                                                                       143997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        166758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16378
                                                                                                                                                                 143897 143996:
                                                                                                                                                                                           140230 140329:
                                                                                                                                                                                                                                                                             118117 118216: gap of 100 k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     153816
157374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 126565
132237
135391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     102084
110123
118217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14033(
                                                                                                                                                                                                                    35291 135390:
                                                                                                                                                                                                                                                                                                                                                                         93598 93697:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59918
                                  1 159817: contig of 159917: qap of
                                                                                                                                          147572: cc 4767°
                                                                                                                                                                                                    140229: cont
                                                                                                                                                                                                                            32236: gap of 100 bp
135290: contig of 3054 bp
                      9917: gap of
161743: contig of
                                                                                                                                                                                143896:
                                                                                                                          7672: gap of 100 bp
150446: contig of 2774 bp
                                                                          100 l
100 l
100 l
101 l
101 l
101 l
101 l
                                                                                                   53715: cont
                                                                                                                                                                                                                                                                                                                                                           01983:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               163684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .01983
                                                                                                                                                                                                                                                                                                                                                                      gap of
                                                                                                                                                                            gap of 100 bp
6: contig of 3567 bp
             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of contig of
                                                                                                   ap of 100 bp
contig of 3169 bp
                                                                                                                                                  contig of 3576
                                                                                                                                                                                                   ap of 100 bp contig of 4839 bp
                                                                                                                                                                                                                                                    ap of 100 bp contig of 5572 bp
                                                                                                                                                                                                                                                                                                                             ap of 100 bp
contig of 7939 bp
                                                                                                                                                                                                                                                                                                                                                         contig of 8286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9999999
                          100 k
                                                 100 bp
2444 bp
                                                                                                                                                                                                                                                                                                                                                                       100 bp
                                                                                                                                               36,
100 bp
76 bp ;
                                                                                                                                                                                                                                                                                             dq 00
                                                                      ا طِحْ ا
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1826
1841
                                                                                                                                                                                                                                                                              đđ
đđ
                         ď
                                                                                                                            đđ
                                                                                                                                                                                                        ďď
                                                                                                                                                                                                                              đđ
                                                                                                                                                                                                                                                        bp in
                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                             ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in
                          'n
                                                                           'n
                                                                                                    ij
                                                                                                                              'n
                                                                                                                                                       in
                                                                                                                                                                               'n
                                                                                                                                                                                                        Ħ
                                                                                                                                                                                                                                 'n
                                                                                                                                                                                                                                                                                  'n
                                                                                                                                                                                                                                                                                                           'n
                                                                                                                                                                                                                                                                                                                                  in length
                                                                                                                                                                                                                                                                                                                                                             in
                                                  'n
                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                         length
length
                         length
                                                                                                                                                     length
                                                                                                                                                                               length
                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                 length
                                                  length
                                                                          length
                                                                                                    length
                                                                                                                            length
                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               leng:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         leng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    leng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
```

```
FEATURES
                            Query Match
                                                                        misc_feature
                                                                                                                              misc_feature
                                                                                                                                                          misc_feature
                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
 Local Similarity
nes 394; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         163685 163784: gap of 100 bp
163785 165216: contig of 1432 bp
165217 165316: gap of 100 bp
165317 166657: contig of 1341 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  166658 166757; gap of 100 bp
166758 168307; contig of 1550 bp in
168308 168407; gap of 100 bp
168408 170030; contig of 1623 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           170031 170130: gap of 100 bp
170131 171725: contig of 1595 bp in
171726 171825: gap of 100 bp
171826 173038: contig of 1213 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
85458. .93597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
47533. .63399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="assembly_fragment"
33790 47432
                                                                                                                               163785. .165216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:9606"
/chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                     /note="assembly_fragment"
                                                                                                     165317.
                                                                                                               note="assembly_fragment clone_end:SP6 vector_side:left"
                                                                                                                                          note="assembly_fragment"
                                                                                                                                                                     note="assembly_fragment"
                                                                                                                                                                                               note="assembly_fragment"
                                                                                                                                                                                                                                                         /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="Homo sapiens"
                                                                        te="assembly_fragment"
758. .168307
                                                                                                                                                                                                                                                                          :e="assembly_fragment clone_end:T7
547. .153715
                                                                                                                                                                                                                                                                                                   :e="assembly_fragment"
i73. .150446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ce="assembly_fragment"
             19.9%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5558
                                                                                                                                                                                                                                                                                                                                        -"assembly_fragment"
                                                                                                                                                                                                                            "assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                      "assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                              "assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . .110022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .33689
                                                                                                                                                                                                             .15981
                                                                                                                                                                                                                                                                                                                                                                                        .140229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .118116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RP11-680C5"
                                                                                                                                                                                     161743
                                                                                                                                                                                                                                                                                                                                                            .143896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             126464
Score 274; DB 2;
Pred. No. 6.3e-136;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in length
                          Length 173038;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
Indels
                                                                                                                                                                                                                                                                                    vector_side:right"
ļ,
Gaps
۳
                                                                                                                                                                      JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
AK055132
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               167139 CTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       167079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            166899
                                                                                                                                                                     Isogai,T., Otsuki,T. and Sugiyama,T.
Direct Submission
                                                                                                                                                                                                                             NEDO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                             Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                    Suzuki,O.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AK055132

2288 bp
Homo sapiens cDNA FLJ30570 fis,
to BONE MORPHOGENETIC PROTEIN 1
                                                                                                                                                                                              (bases 1 to 2288)
                                                                                                                                                                                                                            human cDNA sequencing project
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                              ; Metazoa;
Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:16549793
                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata;
Primates;
```

```
167019 CTACATTGGCATCTATGCCAGCATCAAGACAGACAGCCCTTCTCCCGGATTTCTGGTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                    CTCACTCCTAGAAGGAGGGTGTGAGGCTGACAACC 1019
                                                                                     CTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCT
                                                                                                                                                                                                                                                                                                                                                                                    GCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAA
                                                                    CTCCGACTGGCACAGCTCCCCAGTCTTTGCTTAGTGCCCACTGCAAAGTGAGCTCATGCT
                                                                                                                                                                                                                                                                            GCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAA
                                                                                                                                                                                                         CTACATTGGCATCTATGCCAGCATCAAGACAGCAGCACCTTCTCCGGATTTCTGGTGTA
                                                                                                                                                                                                                                            TCCATTGCCTCTTTCTTCCAGTTTTTC-GGGGGGTGGCCCAAGCCAGCCTCGCTCGGG
167173
                                                                                                                                                                                                                                                                                                                                                                                    745
                                                                                                     984
                                                                                                                                        167078
                                                                                                                                                                        924
                                                                                                                                                                                                                                            864
                                                                                                                                                                                                                                                                                                                804
                                                                    167138
                                                                                                                                                                                                           167018
                                                                                                                                                                                                                                                                                                                                                   166898
                                                                                                                                                                                                                                                                              166958
                                                                                                                                                                                                                                                                                                                                                                                                                        166838
```

mRNA linear PRI 01-AUG-2002 clone BRAWH2005998, weakly similar PRECURSOR (EC 3.4.24.-).

oligo capping; fis (full insert sequence).
Homo sapiens brain cDNA to mRNA, clone_lib:BRAWH2 clone:BRAWH2005998. Craniata; Vertebrata; Catarrhini; Hominidae; Euteleostomi;

Shiohata, N., Matsumoto, K., Hirano, M., Sano, S., Nomura, R., Yoshikawa, Y., Matsumura, Y., Moriya, S., Chiba, E., Momiyama, H., Onogawa, S., Kaesiyama, S., Satoh, N., Matsunawa, H., Takahashi, E., Kataoka, R., Kuga, N., Kuroda, A., Satoh, I., Kamata, K., Takami, S., Terashima, Y., Watanabe, M., Sugiyama, T., Irle, R., Otsuki, T., Sato, H., Ota, T., Wakamatsu, A., Ishi, S., Yamamoto, J., Isono, Y., Kawai-Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Yamashita, H., Kawai-Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Yamashita, H., Matsuo, K., Nakamura, Y., Sekine, M., Kikuchi, H., Kanda, K., Wagatsuma, M., Murakawa, K., Kanehori, K., Takahashi-Fujii, A., Oshima, A., Sugiyama, A., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K. and Isogai, T. Sasaki, N., Aotsuka, S., Shoji, T., Ichihara, T.,

Submitted (24-OCT-2001) Takao Isogai, Helix Research Institute, Genomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan (E-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986) NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA library construction: Helix Research Institute (HRI) (supported by Japan Key Technology Center etc.); 5'-6 3'-end one pass sequencing: RAB, HRI, and Biotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: RAB and

```
BASE COUNT
ORIGIN
                  Ş
                                               밁
                                                                          ρ
                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                     KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                   Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δõ
                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AR138211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
                                                                                                             Query Match
Best Local S
Matches 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1185 TGTGCTGTGCCAGGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCACGGTGGGG 1244
                  340
                                                 72
                                                                                                                                                                                                                                                       1 (bases 1 to 144)
Sheppard, P.O. and Humes, J.M.
Adipocyte-specific protein homologs
Patent: US 6197930-A 28 06-MAR-2001;
                                                                                                                                                                                                                                                                                                                                        Unknown
                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 28
AR138211
                                                                                                                                                                                                                                                                                                                        Unclassified.
                                                                                                                                                                                                                                                                                                                                                       Unknown.
                                                                                                                                                                                                                                                                                                                                                                                        AR138211.1
                                                                                                                                                                                                                                                                                                                                                                                                                                     AR138211
                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
GGGCCACCATGGC
                                               ACTGGACGACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCC
                                                                             ACTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGCACCCCGGCCTTCCAGGCACGCC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGGCCCTTTTCTCAGAGAT 1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCTCTCTTCCTGGTCCTCTCTCTCTGGATCCTCCCCACCCCCTCCTGCTCCTGGGGC 1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGCTGTGCTGGCAAGTGTAAGTCCCCCAGTTGCTCTGGTCCAGGAGCCCCACGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      405
                                                                                                                                                                                            38
                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               //protein_id="Bab70859.1"
//protein_id="Bab70859.1"
//db_xref="GI:16549794"
//db_xref="GI:16549794"
//translation="mkDFSDVILCMEATESSKTEFCNPAFEPESGPPCPPPVFPEDAS
/translation="mkDFSDVILCMEATESSLILLLLGLLVAIILAQLQAAPPSGASH
SYSVPAFMHGRRERGLRPDCRFSWLCVLLLSSLILLLLGLLVAIILAQLQAAPPSGASH
SPLPAGGLTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTSQAAGTPKGQDESGVSPSPGSTCGGLLSPEEGPLLRVCGR
SPLPAGGLTTTTTTTTTTTTTTTTSQAAGTPKGQDESGVSPDGSTCGGLLSPEEGPLLRVCGR
VPPTLNTNASHLLVVEVSDSSVEEGFEHAWYQAMAPGRCSCAHDEFRCDGLICLLPD
SVCDGFANCADGSDETNCSAKFSGCGGNLTGLQGTFSTPSYLQQYPHQLLCTWHISVP
AGHSIELQFHNFSLEAQDECKFDYVEVTSTSSGGAFSLLGFCGAEPPHLVSSHHEL
SVLFRTDHGISSGGFSATYLAFNATENFCGPSELSCQAGGCKGVQMMCDMMRDCTDGS
DDNCSGGLFPPPELACEFVQVEMCLGLSYNTTAFNIWCMITQEEVVEVLSGYKSLT
SLPCYQHFRILLGGLLVPRCTPLGSVLPPCRSVCQEAEHQCQSGLALLGTPWPFNCNR
                                                                                                                                                                                              വ
                                                                                                                                                                                         organism="unknown"
41 c 36 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LPEAADLEACAQP"
                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone="BRAWH2005998"
/tissue_type="brain"
/clone_lib="BRAWH2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note-"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61. .1900
                                                                                                                                                                                                                                                                                                                                                                                                                    from patent US
                                                                                                                           5.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "cloning vector: pME18SFL3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      O
                                                                                                             b; Score 73; DB
b; Pred. No. 8.2
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 139; DB 9; Pred. No. 2.6e-63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   626 g
                                                                                                                                                                                                                                                                                                                                                                                                                   144 bp |
US 6197930.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      484 t
                                                                                                             DB 6; L
8.2e-28;
hes 0;
                                                                                                                                                                                            29
                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                          Length 144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 2288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                     PAT 16-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                               131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2185
                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
AR138212
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
Search completed: June Job time: 3723 secs
                                                                                                                                                                                                                                                                SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                     RESULT 15
AR138214
                                         밁
                                                         δÃ
                                                                                ₽
                                                                                               δÃ
                                                                                                                                                              ORIGIN
                                                                                                                                                                        BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                              å
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 72
                                                                                                                                 Query Match
Best Local
                                                                                                                        Matches
                                                                                                                                                                                           source
                                                                              944 CCAGTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                             133 GGCCACCATGGC 144
                                                                                                                                                                                                                                                                                                                                                                                                341 GGCCACCATGGC 352
                                                                                                                                                                                                                                                                                                                                                                                                                                       281 CTGGACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 132
                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                   73 CTGGACGACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AR138212
Sequence
AR138212
                                                                                                                                                                                                               Unclassified.
1 (bases 1 to 144)
Sheppard, P.O. and Humes, J.M.
Adipocyte-specific protein homologs
Patent: US 6197930-A 31 06-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            72;
                                                                                                                                                                                                                                                                                             AR138214 14
Sequence 31 from patent US
AR138214
AR138214.1 GI:14479723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unclassified.
1 (bases 1 to 144)
Sheppard, P.O. and Humes, J.M.
Adipocyte-specific protein homologs
Patent: US 6197930-A 29 06-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unknown
                                                                                                                                                                                                                                                                Unknown
                                                                                                                                                                                                                                                                           Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AR138212.1
                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                        CCAGTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGCCACCATGGC 144
                                                                                                                        Conservative
                                                                                                                                                                         32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29
                                                                                                                                                                       /organism="unknown"
32 c 37 g
                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="unknown"
40 c 43 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
          21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:14479721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                5.2%; Score 72;
100.0%; Pred. No.
                                         72
                                                            955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     patent US
            13:55:52
                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 72;
Pred. No.
                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                  144 bp
IS 6197930.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .44 bp
6197930.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 6; Lo
                                                                                                                                DB 6; L
                                                                                                                                                                         43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                         +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                         Length 144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                           PAT 16-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PAT 16-JUN-2001
                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                    132
                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                        340
                                                                                                                        0
```

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                   Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BLOSUM62
       100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
                                                                                                                                                                                                                                                                   Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-944-944-42
1325
1 MRPLLVLLLLGLAAGSPPLD.......DSTESGFLVYSDWHSSPVFA 243
                                                                                                                                                                                                                                                                                         Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       908470 segs, 133250620 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           June 13, 2003, 15:49:51; Search time 72 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A_Geneseq_101002:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1980.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1981.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'SIDS2/gcgdata/geneseq,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1998.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2000.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2001.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2002.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1996.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1997.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1994.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1995.DAT:*
                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gapext 0.5
                                                                                                                                                                                                                                                                     ij
    AAY 06481
AAY 17827
AAW 97984
AAB 33461
AAY 71468
AAY 93688
AAW 13352
AAB 65815
AAB 49593
                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (without alignments)
449.721 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           908470
Human tumour assoc
Human PR0344 prote
Human adipovyte-sp
Human PR0344 prote
Human PR0344 prote
Amino acid sequenc
Human PR0344 polyp
Human PR0344 polyp
Human TANGO 253 SE
Human adipocyte co
                                                                                                                                                                                                                                                                Description
```

45	44	43	42	41	40	39	38	37	36	35	34	<u>ω</u>	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14		12	11
424	424	424	424	424	424	424	424.5	424.5	425	433.5	433.5	433.5	442.5	449.5	478	650	675	1048	1183	1200	1243.5	1254	1254	1256	1256	1258	1271	1271	1271	1321			1323	1325
32.0	32.0	32.0	•	٠	•	•	•	32.0	•	32.7	32.7	32.7	•	33.9	36.1	49.1	50.9	٠	89.3	90.6	٠	•	•	•	•	٠	٠	٠	•	99.7	99.7	99.7		100.0
244	244	244	244	244	244	244	247	247	244	247	247	247	333	225	151	128	128	201	220	228	242	243	243	243	228	243	243	243	243	243	243	243	243	243
22	22	22	22	21	21	20	23	22	18	23	22	18	23	23	22	22	22	23	22	22	22	22	22	22	22	22	23	22	21	22	22	22	22	22
AAB49598	AAB49592	AAB65828	AAE05529	AAY71035	AAB30233	AAY21807	ABB08221	AAE05527	AAW09108	ABB08222	AAE05528	AAW09107	ABB80582	ABB80583	ABG12723	AAB65824	AAB65819	AA021663	ABG12724	AAB65821	AAB65896	AAB65898	AAB65897	AAB65899	AAB65816	AAB65820	A)	AAB55979	ഹ	AAB65890	AAB65889	588	83	AAB49599
Human ACRP30 prote	Human ACRP30 prote	Human adipocyte co	Human OBG3 protein		~	Adipose most abund	adipo	Mouse OBG3 protein	adipocy	Mouse acrp30 prote	OBG3 protei	Murine adipocyte c	Human sbg1033026C1	Human sbg1033026C1	Novel human diagno	w	TANGO 253	Human secreted pro	human di	Murine mature TANG	secreted	secreted p	secreted p			ine TANGO	protein isola	n cell prot			secreted	secreted	secreted p	Human adipocyte co

ALIGNMENTS

			4 1			_	_					_					_		
PR	PF	X P X	PN	F	H H	1	H	F 1	ΕŢ	FΗ	×	SO	××	X	DE	Į D	×	A X	ID AAY
20-NOV-1998; 05-JAN-1998; 29-APR-1998;	05-JAN-1999;	15-JUL-1999.	WO9935170-A2.		Modified-site	Modified-site		Protein	Peptide	Key		Homo sapiens.	PRO344; UNQ303;		Human tumour-a	27-SEP-1999 (AAY06481;	AAY06481 ID AAY06481 stand
98US-0109304. 98US-0070440. 98US-0083500.	99WO-US00106.			<pre>/note= "N-myristoylated"</pre>	<pre>/note= "N-myristoylated" 216243</pre>	68215	/note= "mature protein"	<pre>/note= "signal peptide" 16243</pre>	115	Location/Qualifiers			; cancer; tumour; diagnosis; therapy;		Human tumour-associated protein PRO344.	(first entry)			standard; Protein; 243 AA.

```
RESULT 2
AAY17827
ID AAY1
XX AAY1
AC AAY1
XX I 12-A
XX Huma
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                              日
                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This sequence represents human PRO344 (UNQ303), a protein encoded by the novel cDNA clone DNA40592 (see AAX87258). Amplification of DNA40592 was observed in primary lung tumours and in primary colon tumours, suggesting a significant role in tumour formation and growth. Antagonists (e.g. antibodies) directed to PRO344 may have use in cancer therapy. The invention identifies 14 genes (see AAX87254-67) that are amplified in the genome of tumour cells. Such amplification is expected to be associated with overexpression of the gene product and to contribute to tumorigenesis. The encoded proteins (see AAY06477-90) may be useful targets for the diagnosis and/or treatment (including prevention) of certain cancers, and may have the contribute to tumorigenesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-MAY-1998;
10-JUN-1998;
10-NOV-1998;
                         secreted
 Homo
                                    Human;
                                                            Human PRO344
                                                                                    12-AUG-1999
                                                                                                                                    AAY17827 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and/or treatment (including prevention) of certain cancers, act as predictors of the prognosis of tumour treatment. An that bind the proteins are claimed and used in claimed cancers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Roy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Botstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH ) GENENTECH INC.
 sapiens
                                                                                                                                                                                                241
                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ody against proteins expressed diagnosis and treatment
                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
243; Conserv
                                    PRO
                                                                                                                                                                                                                                                                                         Wood C
                                                                                                                                                                                                                                                                                                                                                                                       MRPLLVLLLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                VFA
                                                                                                                                                                                                                      VFA
                                                                                                                                                                                                                                                          FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                     APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                         APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                    protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard
                                                                                                                                                                                                                        243
                                                           protein sequence
                                                                                   (first
                                                                                                                                                                                                243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0086414.
98US-0088742.
98US-0107783.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
                         transmembrane
                                                                                                                                   Protein;
                                   tumour
                                                                                  entry;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
                                    necrosis factor
                                                                                                                                   243
                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1325; DB 20;
Pred. No. 5.3e-103;
; Mismatches 0;
                      protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΑĽ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in neoplastic cells, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hillan
                        inflammation disorder.
                                    family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lawrence
                                    TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cancer
                                   cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                               60
```

δõ 밁 δÃ 밁 Qy 밁 Ş ₽ δÃ

```
Query Match
Best Local S
Matches 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-DEC-1997;
05-JAN-1998;
09-FEB-1998;
09-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-FEB-1998;
03-DEC-1997;
11-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                            The present invention describes nucleic acids encoding PRO secreted and transmembrane proteins used therapeutically. The PRO proteins have cytostatic, anti-inflammatory, anti-prolliferative and immunosuppressive activity. The proteins and polynucleotides can be used in therapy, identification of homologues, raising antibodies and design of probes and primers. They can be used in a range of diseases related to proteins that they have homology with, e.g. a PRO protein having homology to complement proteins may be used in inflammatory responses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yuan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB;
                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acids encoding PRO secreted and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-DEC-1997;
17-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W09928462-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L2-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1999-371118/31.
DB; AAX80052.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
 241
                          241
                                                       181
                                                                                 181
                                                                                                              121
                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΚP,
                                                                                                                                                                    61
                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12; Fig
                                                                                                                                                                                                                                                     μ
                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENENTECH
                           VFA
VFA
                                                     MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                 FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                          MRPLLYLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chen
                                                                                                                                                                                                                                                                                                                                     243 AA;
                                                                                                                                                                                                                                                                                 Conservative
                           243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21; 123pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-0069696
97US-0069702
97US-0069870
97US-0069873
97US-0069873
97US-0070440
98US-00744086
98US-00744092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0075945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Goddard
                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,
                                                                                                                                                                                                                                                                              Score 1325; DB 20; Pred. No. 5.3e-103; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Æ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     transmembrane proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wood
                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                              0
                                                                                                                                        180
                                                        240
                                                                                                              180
                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                     60
```

```
a protein that modulates free fatty acid metabolism. zsig39 is member of a family of proteins having a globular domain and a collagen-like domain capable of dimerisation or oligomerisation. zsig39 polypeptides were initially identified by querying an EST
                                    This polypeptide comprises human adipocyte-specific protein zsig39, a protein that modulates free fatty acid metabolism. zsig39 is a
                                                                                                                                                                                                   04-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Adipocyte-specific protein; energy balance; nutrition; a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human adipocyte-specific protein zsig39.
                                                               Claim
                                                                                Zsig39
                                                                                                                                               OMYZ)
                                                                                                                                                                26-AUG-1997;
                                                                                                                                                                                 26-AUG-1998;
                                                                                                                                                                                                                       WO9910492-A1
                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW97984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW97984 standard;
                                                                                                           1999-204665/17.
                                                              ۲.
                                                                                                                             Ϋ́
                                                                                                                                             ) ZYMOGENETICS INC
                                                                               protein - used to modulate
        polypeptides were initially identified by querying an EST
                                                                                                  AAX24684
                                                             111-112; 132pp;
                                                                                                                            Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
 secretory signal
                                                                                                                                                               97US-0056983
                                                                                                                                                                                 98WO-US17724.
                                                                                                                                                                                                                                                                                                                                           /note- ")
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nutrition; antimicrobial
                                                                                                                                                                                                                                                /note= ".
170..174
                                                                                                                                                                                                                                                                                                                                                                                                                                         /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "signal peptide, alternatively
peptide comprises residues 1..."
                                                                                                                                                                                                                                                                   111..135
                                                                                                                                                                                                                                                                            /note=
                                                                                                                                                                                                                                                                                              /note-
                                                                                                                                                                                                                                                                                                                                                                   /note-
                                                                                                                                                                                                                                                                                                                                                                              143..146
                                                                                                                                                                                                                                                                                                                                                                                                136..139
                                                                                                                                                                                                                                                                                                                                                                                                       /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16..243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                         'note=
                                                                                                                                                                                                                                                                                                                                 note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein;
                                                                                                                             ğ
                                                                                                                                                                                                                                                                                      . 23
                                                                                                                                                                                                                                                                                                                                                                                                                                   ..109
                                                                                                                                                                                                                                                                                                                        . 200
                                                                                                                                                                                                                                                                                                                                                                                                                 .130
                                                                                                                                                                                                                                                        "receptor binding
                                                                                                                                                                                                                                                                                                              "beta
                                                                                                                                                                                                                                                                                                                                                                                    "beta
                                                                                                                                                                                                                                                                                                                                                                                                      "beta strand"
                                                                                                                                                                                                                                                                            "beta strand'
                                                                                                                                                                                                                                                                                             "beta strand"
                                                                                                                                                                                                                                                                                                                                "beta strand"
                                                                                                                                                                                                                                                                                                                                                 "beta strand"
                                                                                                                                                                                                                                                                                                                                                                                                                                          "globular domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                            "collagen-like domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "mature protein, alternatively the mature protein comprises residues 19..243
                                                                                                                                                                                                                                       "receptor binding
                                                                                                                                                                                                                                                                                                                                                                   "beta strand"
                                                                                                                                                                                                                                                                                                                                                                                                                         "beta strand"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (specifically claimed
                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        zsig39; human; fatty acid metabolism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                               strand"
                                                                                                                                                                                                                                                                                                                                                                                   strand*
 sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B.
                                                                              fatty
 characterised
                                                                               acid metabolism
                                                                                                                                                                                                                                        domain"
                                                                                                                                                                                                                                                          domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
ьy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the
                                  zsig39 is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ٦ (
an upstream
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          signal
```

```
RESULT 4
AAB33461
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acids and a cleavage site. A single EST sequence was discovered, and the novel polypeptide encoded by the full-length C cDNA allowed the identification of a homologue relationship with C adipocyte complement related protein Acry30 and adipocyte secreted protein apM1. A full-length clone (see Ax24684) was obtained from a lung tissue library. Expression vectors, cultured cells and a cultured trissue library. Expression vectors, cultured cells and a comethod of producing zsig39 polypeptide are claimed, as well as concluding zsig39 polypeptides and antibody that specifically including zsig39 polypeptides, an antibody that specifically binds to an epitope of zsig39, and a method for modulating free considered may also be used in organ preservation, for surgical pretreatment to prevent injury due to ischaemia and/or inflammation, and as an antimicrobial agent, vectors of the promoting lysis or phagocytosis of infectious agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                       osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis; idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis; systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus autoimmune thrombocytopaenia; immune-mediated renal disease; autoimmune thrombocytopaenia; immune-mediated renal disease; demyellnating disease; hepatobiliary disease; Whipple's disease; inflammatory bowel disease; jutten-sensitive enteropathy; inflammatory bowel disease; disease; sittle enteropathy; autoimmune disease; immune-mediated skin disease; allergic disease; autoimmune disease; immune-mediated skin disease; allergic disease;
                                                            graft
                                                                                                                                                                                                                          haemostatic; antithyroid; antidiabetic; nootropic; neuroprotectiv antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic;
                                                                                                                                                                                                                                                       Human; immune related disease; diagnosis; antiinflammatory; cardiant; dermatological; antiarthritic; antirheumatic; immunosuppressive;
                                                                                                                                                                                                          antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                             29-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                             AAB33461;
                                                                                                                                                                                                                                                                                                                                                                                                            AAB33461 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                             immunological disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                             rejection;
                                                                                                                                                                                                                                                                                                            PRO344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MRPLLVLLLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                          protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽,
                                                            graft-versus-host-disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                            UNQ303
                                                                                                                                                                                                                                                                                                            SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                            243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1325;
Pred. No. 5.3
0; Mismatches
                                                                                                                                                                                                                                                                                                          ID NO:241
                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3e-103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                           allergic disease;
disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                             neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                            mellitus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

WO200053758-A2

```
13-SEP-1999
15-SEP-1999
15-SEP-1999
25-OCT-1999
29-OCT-1999
30-NOV-1999
31-DEC-1999
01-DEC-1999
01-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
03-DEC-1999
03-DEC-1999
04-DEC-1999
05-DEC-1999
05-DEC-1999
05-DEC-1999
05-JAN-2000
06-JAN-2000
06-JAN-2000
06-JAN-2000
06-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-JUL-1
26-JUL-1
28-JUL-1
01-SEP-1
08-SEP-1
                                     The present invention describes sixty four human PRO proteins which can be used in the treatment of immune related diseases. The human PRO proteins, anti-PRO antibodies, agonists and antagonists are useful for treating and diagnosing immune related disorders. The disorders are selected from systemic lupus erythematosus, rheumatoid arthritis, osteoarthritis; juvenile chronic arthritis, spondyloarthropathies, systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus, immune-mediated renal disease, demyelinating diseases of the central and parinhoral narrous gusterns demyelinating diseases of the central and parinhoral narrous gusterns
                                                                                                                                                                                                                                   Sixty four PRO polypeptides, useful in the diagnosis and treatment of immune related disorders, e.g. systemic lupus erythematosis, rheumato arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
   autoimmune
                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                  Ashkenazi AJ,
                                                                                                                                                                                                                                                                                                                                                                                                (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-SEP-2000
peripheral nervous systems, hepatobiliary diseases, inflammatory el disease, gluten-sensitive enteropathy and Whipple's disease, pimmune or immune-mediated skin diseases, allergic diseases,
                                                                                                                                                                                                                                                                                               2000-572271/53.
)B; AAC58626.
                                                                                                                                                                                                                                                                                                                                        f RC,
                                                                                                                                                                                                                                                                                                                                                                                                  GENENTECH
                                                                                                                                                                                                       Fig
                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US00219.
2000WO-US00277.
2000WO-US00376.
2000WO-US03565.
2000WO-US04341.
2000WO-US04414.
                                                                                                                                                                                                                                                                                                                                        Lu Y, |
Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US05841
                                                                                                                                                                                                           96;
                                                                                                                                                                                                                                                                                                                                                      Baker KP,
Lu Y, Pan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US28214
99WO-US28313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US28551
99WO-US28564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US28409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US23089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US21547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US20944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US20594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0144758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9908-0141037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US0861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US05028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US12252
                                                                                                                                                                                                                                                                                                                                                                                                  INC
                                                                                                                                                                                                       309pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -0146222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -0145698
                                                                                                                                                                                                                                                                                                                                        P, Goddard A, an J, Pennica I Watanabe CK, V
                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                       Gurney AL, Heb
D, Shelton DL,
Wood WI, Yan M;
                                                                                                                                                                                                                                                                                                                                                      Hebert C,
)L, Smith
                                                                                                                                                                                                                                                                                                                                                       <
                                                                                                                                                                                                                                                  rheumatoid
                                                                                                                                                                                                                                                                                                                                                                     Henzel
                                                                                                                                                                            can
                                                                                                                                                                                                                                                                                                                                                                     ξ
 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
 01-DEC-1998;
```

```
RESULT 5
AAY71468
ID AAY7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immunological diseases of the lung, and transplantation associated diseases including graft rejection and graft-versus host-disease. AAC58397 to AAC58578 represent PCR primers and hybridisation probes in the isolation of human PRO sequences. AAC58579 to AAC58642 and AAB33414 to AAB33477 represent human PRO polynucleotide and protein sequences given in the exemplification of the present invention.
30-NOV-1999;
                                                                                                                                                                                                             Modified-site
                                                                                                                                                                                                                                                                      Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            extracellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY71468
                                                         08-JUN-2000
                                                                                                                  WO200032778-A2
                                                                                                                                                                                                                                                                                                                                      Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  neoplastic cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO344; DNA40592-1242;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY71468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        breast; prostate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44: DNA40592-1242; human; ATCC No: 209492; antiproliferative; lastic cell growth inhibitor; cytostatic; treatment; cancer; st. prostate; colon; lung; renal; ovarian; central nervous sy: leukemia; melanoma; Expressed Sequence Tag; EST; secreted proleukemia; melanoma; EST; secreted proleukemia; melanoma; EST; secreted proleukemia; melanoma; EST; secreted proleukemia; melanoma; estatution proleukemia; melanoma; estatution proleukemia; melanoma; estatution proleukemia; melanoma; estatution proleukemia; melanoma; estatution proleukemia; melanoma; estatution proleukemia; melanoma; melanoma; melanoma; melanoma; melanoma; melanoma; melanoma; m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDY:IGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   243 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            domain; ECD
99WO-US28409
                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label=
11..17
                                                                                                                                                                                                       /note=
216..2
                                                                                                                                                                                                                                                                                                                                      68..74
                                                                                                                                                                                                                                                                                                                                                                                               /note= "N-myristoylation 16..243
                                                                                                                                                                                                                                                                                                         /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                  'label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                          "Cell attachment sequence"
                                                                                                                                                                                                                                                                                                      "N-myristoylation
                                                                                                                                                                              "N-myristoylation
                                                                                                                                                                                                                                                                                                                                                            Mature_PRO344_protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1325; DB 21; Pred. No. 5.3e-103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                         site"
                                                                                                                                                                                                                                                                                                                                                                                                                              site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
```

98WO-US25108

```
AAY93GB

AAY93GB

ID AAY9

XX AAY9

XX AAY9

XX AAY9

XX AAY9

XX AMIN

XX PROJ

KW PROJ

KW PROJ

KW PROJ

KW PROJ

KW PROJ

KW PROJ

KW PROJ

KW PROJ

KW PROJ

KW PROJ

KW PROJ

KW Lunc

XX Home

XX Home
                                                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Sim
Matches 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is the human PRO344 protein, encoded by the cDNA clone, designated as DNA40592-1242. It is isolated from human foetal lung tissue, cDNA library, identified using probes based on a consensus sequence DNA34398, derived from secreted protein extracellular domain (ECD) expressed sequence tag (EST). This clone is assigned ATCC deposit No: 209492. PRO344 functions as a neoplastic cell growth inhibitor and is used for treating tumours, using an effective amount of PRO3655, PRO36 and PRO344. This composition is especially useful for treatment of human cancers such as breast, prostate, colon, lung, renal, ovarian and CNS, leukemia and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-DEC-1998;
22-DEC-1998;
20-JUL-1999;
26-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chen
                                                                                                                                                                                     03-OCT-2000
                                                                                                                                                                                                                          AAY93688
                                                                                                                                                                                                                                                          AAY93688 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 31; Fig 6; 108pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New composition useful for inhibiting neoplastic cell growth and treating cancers, comprises PRO655, PRO344 or PRO364 polypeptide
                                      Homo
                                                                                          PRO201; PRO292; | PRO715; PRO1017;
                                                                                                                                            Amino acid sequence of novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                       tumourigenesis; cancer;
                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000-412325/35.
                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antagonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAD01241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                     VFA 243
                                                                                                                                                                                                                                                                                                                                                                                        VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                              FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0112850.
98US-0113296.
99US-0144758.
99US-0145698.
                                                                                        PRO327; PRO1265; PRO1112; PRO509;
Location/Qualifiers
                                                                                                                                                                                                                                                          Protein;
                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gurney
                                                                       neoplastic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                            polypeptide PRO344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1325; DB 21;
Pred. No. 5.3e-103;
; Mismatches 0;
                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hillan
                                                                                      PRO344; PRO343; PRO853; PRO882;
                                                                   cell growth;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Napier
                                                                       cell proliferation
                                                                                          PRO347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inhibitor and of PRO655, PRO364 eatment of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                       ρŅ
                                                                                                                                                                밁
                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                        $\times \color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\color{\colin}\color{\color{\color{\color{\color{\color{\color{\color{\
                                              Ω
                                                                                    Вþ
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Botstein Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide
                                                                                                                           121
                                                                                        121
                                                                                                                                                                61
                                                                                                                                                                                                  61
```

```
01-SEP-1999;
15-SEP-1999;
30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-DEC-1998;
08-MAR-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                 The present sequence represents a novel human polypeptide. The specification describes novel polypeptides designated PRO201, PRO292, PRO327, PRO31265, PRO344, PRO349, PRO357, PRO115, PRO509, PRO343 and PRO882. These genes are amplified in the genome of tumour cells. The polypeptides are believed to contribute to tumourigenesis. The polypeptides are useful target for the identification of certain cancers, and may act as predictors of the prognosis of tumour treatment. Antibodies against these polypeptides are useful in the treatment and diagnosis of neoplastic cell growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New anti-polypeptide antibody useful in the treatment neoplastic cell growth and proliferation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-452188/39.
N-PSDB; AAA46907.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JUN-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200037640-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                       proliferation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61; Fig 10; 220pp; English.
                                                                                                                                                                                                           1 MRPILVILLIGIAAGSPPILDDNKIPSICPGHPGIPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                           Similarity
                                                                                                                           APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ö
                                                            FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                FFGGWPKPASLSGGAMYRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                           243
                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US05028.
99WO-US12252.
99WO-US20111.
99WO-US21090.
99WO-US28313.
                                                                                                                                                                                                                                                                                                                         ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US28409.
99WO-US28301.
99WO-US28565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0113296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note=
216..22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note=
68..74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note=
11..17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note=
77..80
                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "cell attachment sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "N-myristoylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "N-myristoylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "N-myristoylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "signal peptide"
                                                                                                                                                                                                                                                                                                                           e'_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gurney
                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                      Score 1325; DB 21;
Pred. No. 5.3e-103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ¥,
                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7,
                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lawrence
                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DA,
                                                                                                                                                                                                                                                                                           243;
                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Roy
                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of.
240
                                                              180
                                                                                            180
                                                                                                                                                            120
                                                                                                                                                                                              60
                                                                                                                              120
                                                                                                                                                                                                                                                           0
```

```
RESULT 7
ARABOLT 7
ARABOLT AT A ABOLT AT A A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
 Matches
                Query Match
Best Local
                                                                                        New human nucleic acids encoding secreted and transmembrane polypeptides which are designated as PRO polypeptides are described The membrane-bound proteins have various industrial applications, including as pharmaceutical and diagnostic agents. The membrane-bound proteins can also be employed for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. Anti-PRO antibodies are useful for the affinity purification of PRO from recombinant cell culture or natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRO; membrane
PRO243; PRO715
PRO355; PRO353
                                                                                                                                                                                                                                   Claim 12; Fig 18; 187pp;
                                                                                                                                                                                                                                                                New human nucleic acids (polypeptides, designated and diagnostic agents
                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                              Sequence
                                                                                                                                                                                                                                                                                                                                 N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200032776-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human PRO344 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB01318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB01318 standard;
              Local
                                                                                                                                                                                                                                                                                                                               2000-412324/35.
DB; AAA49560.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
 al Similarity
243; Conserv
                                                                                                                                                                                                                                                                                                                                                                             ζ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mbrane bound protein; secreted protein; F
PRO715; PRO241; PRO333; PRO233;
PRO353; PRO361; PRO365; transmembrane po
y; screening; detection; inhibition; prob
                                                                                                                                                                                                                                                                                                                                                                         , Botstein D,
n ME, Goddard A
I, Kljavin IJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VFA
                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US25108.
98US-0112850.
98US-0113296.
                                                              A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-
68..74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note-
77..80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= Cell attachment sequence 216..222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= Signal peptide 11..17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
1..15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
100.0%; S
100.0%; F
tive 0;
                                                                                                                                                                                                                                                                                                                                                                                         þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "N-myristoylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "N-myristoylation site"
                                                                                                                                                                                                                                                                                  encoding
d as PRO p
                                                                                                                                                                                                                                                                                                                                                                         Eaton DL, Ferrara N, Filvaroff E;
N, Godowski PJ, Grimaldi CJ, Gurn
Napier MA, Roy MA, Tumas D, Woo
                                                                                                                                                                                                                                   English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    243
Score 1325;
Pred. No. 5.3
); Mismatches
                                                                                                                                                                                                                                                                               y secreted and
polypeptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              transmembrane polypeptide;
inhibition; probe; primer; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       site"
                .3e-
                                                                                                                                                                                                                                                                                                 and
                                DB
                                                                                                                                                                                                                                                                               transmembrane useful as pha
   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRO357; PRO327; PRO344; PRO347;
   Indels
                                Length
                                                                                                                                                                                                                                                                                                                                                                             Gurney
Wood W
                                                                                                     l peptide or nd interaction.
                                                                                                                                                                                                                                                                                pharmaceutical
                                243;
 0
                                                                                                                                                                                                                                                                                                                                                                             Y AL;
Gaps
 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
AAU12352
ID AAU1
 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
              22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
01-MAR-2000;
21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
17-MAY-2000;
02-MAY-2000;
02-UN-2000;
02-UN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
```

```
01-DEC-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
09-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human secretory and transmembrane; PRO; mammalian; cancer; lung; breast; prostate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage; ear; proliferation; glucose; free fatty acid; skeletal muadipocyte; A-peptide; factor VIIA; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                   18-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                  06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU12352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU12352 standard; Protein; 243 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
99US-0170262

99WO-US30095

99WO-US30991

99WO-US33999

99WO-US00376

2000WO-US003765

2000WO-US00365

2000WO-US04341

2000WO-US04341

2000WO-US04341

2000WO-US04341

2000WO-US0437

2000WO-US0437

2000WO-US0437

2000WO-US05601

2000WO-US05601

2000WO-US05601

2000WO-US05601

2000WO-US05601

2000WO-US05601

2000WO-US05601

2000WO-US05601

2000WO-US05644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                    99WO-US28301.
99WO-US28634.
99WO-US28551.
                                                                                                                                                                                                                                                                                                                                                        99WO-US28565
                                                                                                                                                                                                                                                                                                                                                                        99WO-US28564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
```

```
RESULT 9
AAB65815
ID AAB6
XX
AC AAB6
XX
DT 28-W
XX
DE Huma
                                                                                                                                                                                                                                                  δã
                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                  밁
                                                                                                                                                    δÃ
                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       PRO polypeptides, and to detect the presence of mammalian lung, colon, corporate, prostate, rectal, cervical or liver tumours by comparing PRO polypeptide expression in a cell sample to that in a control sample. Some of the 275 sequences are also useful to stimulate the release of tumour necrosis factor alpha (TNF-alpha) from human blood, the proliferation or differentiation of chondrocytes; the proliferation or gene expression in perloyte cells, the release of proteoglycans from cartilage, the proliferation of inner ear utricular supporting cells or T-lymphocytes, the release of a cytokine from peripheral blood monocytes (PBMCs), or the proliferation of endothelial cells. Some of the PRO polypeptides may modulate glucose or free fatty acid uptake by skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide to factor VIIA. The PRO polypeptides can be used in assays to identify molecules involved in binding interactions. The polynucleotides encoding PRO polypeptides can be used to generate probes, antisense RNA/DNA, cut transgenic or knock out animals and can be used in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isolated, secretory and transmembrane PRO polypeptide used to detect other PRO polypeptides, link bloactive molecules to cells expressing PRO polypeptides, and detect the presence of mammalian tumours e.g. lung, breast, prostate, cervical
  Human TANGO
                        28-MAR-2001
                                                AAB65815;
                                                                      AAB65815 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU12172-AAU12446 represent novel human secretory and transmembrane PRO polypeptides. The PRO polypeptides are useful to detect other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-408281/43.
N-PSDB; AAS21424.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerritsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polypeptides. The PRO polypeptides are useful to detect other polypeptides, to link bloactive molecules to cells expressing polypeptides, to modulate biological activities of cells expressing
                                                                                                                                                         241
                                                                                                                                                                                181
                                                                                                                                                                                                        181
                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                          243;
                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                       1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENENTECH INC
                                                                                                                                                VFA 243
                                                                                                                                                                              APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                         APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                  VFA 243
                                                                                                                                                                                                                            APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                          MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fig 362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Beresini M,
Æ, Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                                                                                                                                                                                                                                                                                                        100.0%;
llarity 100.0%;
Conservative 0
  253 SEQ
                        (first
                                                                                                                                                                                                                                                                                                                                                                                                                         A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 813pp; English
                                                                        Protein;
                        entry)
  ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   I A, Godow
Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Deforge L, Desnoyers L, Filvar
A, Godowski PJ, Gurney AL, She
Batanabe CK, Wood WI,
  ω
                                                                        243
                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                 Score 1325; DB 22;
Pred. No. 5.3e-103;
                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Filvaroff E,
L, Sherwood S;
                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                243;
                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gao
                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Σ
                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                             180
                                                                                                       RESULT 10
AAB49593
                                                                                                                                                                                                                                                                                                                       δÃ
  EXEXEXEXEX B
                                                                                                                                                                           δÃ
                                                                                                                                                                                                    Db
                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                     QV
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Human; zacrp5; gene therapy; complement inhibition; C1q domain;
                      Human adipocyte complement related protein homolog zsig39
                                               13-MAR-2001
                                                                      AAB49593
                                                                                             AAB49593
                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 9; Page 211-212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sclerosis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                       241
                                                                                                                                                                              241
                                                                                                                                                                                                       181
                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KR,
                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                               243;
                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                              VFA
                                                                                                                                                       VFA
                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                                             243 AA;
                                                                                                                                                       243
                                                                                                                                                                              243
                                              (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  asthma
```

```
The present invention provides the protein and coding sequences of human and murine secreted or transmembrane proteins TANGO 253, TANG TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human: mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olifactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            coronary, pulmonary, olfactory, imm developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGRPG
                                                                                                                                                                                                                                                                                                                  FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                           FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                                                                                                                                                                            APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                     APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0336536.
entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     332pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1325;
Pred. No. 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .3e-103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                            180
```

0;

```
В
                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                     protein homolog, zacrp5 protein and coding sequence (see AAB49590 and AAC90045). ZACRP5 has a carboxy1-terminal C1g domain. The zacrp5 gene is located on human chromosome 16. Zacrp5 gene and protein are useful for diagnosing and treating inflammations, for determining arterial remodelling, for modulating calcium ion concentration, hormone secretion, DNA synthesis or cell growth, inositol phosphate turnover, arachidonate release, phospholipase C activation, gastric emptying, human neutrophil activation or ADCC capability and superoxide anion production. Zacrp5 gene and protein are also useful as antimicrobial applications, preferably against bacteria and virus, for complement inhibition, for treating acute vascular injury, and for wound healing. The present sequence is human adipocyte complement related protein homolog, zsig39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         adipocyte complement related protein homolog; inflammation; hormone secretion; inositol phosphate; arachidonate; phospholipase C activation; gastric emptying; neutrophil activation; superoxide anion production; antimicrobial; acute vascular injury;
                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 1; 121pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             infections, and in wound healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel adipocyte complement related protein homolog, ZACRP5, useful for diagnosing and treating inflammation, vascular injury microbial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Piddington CS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-MAY-2000; 2000WO-US13608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200073444-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              wound
                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               present invention
                           241
241
                                                              181
                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-061531/07.
                                                                                           181
                                                                                                                                                         121
                                                                                                                                                                                        61
                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           healing; zsig39.
                                                                                                                                                                                                                                                                                                                                                                                                              protein
                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                       APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                   MRPLLYLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                            FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                             VFA
                                                                                                                                                                                      APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                           This protein was used in a sequence homology alignment with
                                                                                           FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                                                                                                                                                    MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                  Conservative
                               243
                                                                                                                                                                                                                                                                                                                                                                               ΑĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0321372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sheppard
                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               relates to human adipocyte complement related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Р0;
                                                                                                                                                                                                                                                                                                                 Score 1325; DB 22;
Pred. No. 5.3e-103;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                DB 22;
                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          out and comps gene is a useful from that
                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                       180
                                                                                                                                                                                                                    120
                                                            240
                                                                                         240
                                                                                                                          180
                                                                                                                                                                                      120
                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                 0
```

RESULT 11 AAB49599

Ş 밁 δÃ

181 121

FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP

APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ 180

APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ

180

121

밁 γ В δÃ В δ QY

```
밁
                            ğ
                                                              밁
                                                                                          Š
                                                                                                                                                                                       Query Match
Best Local S
Matches 243
                                                                                                                                                                                                                              located on human chromosome 21q. zacrp6 gene and protein are useful for diagnosing and treating inflammations, for determining arterial remodelling, for modulating calcium ion concentration, bormone secretion, DNA synthesis or cell growth, inositol phosphate turnover, arachidonate release, phospholipase C activation, gastric emptying, human neutrophil activation or ADCC capability and superoxide anion production zacrp6 gene and protein are also useful as antimicrobial applications, preferably against bacteria and virus, for complement inhibition, for treating acute vascular injury, disseminated intravascular coagulation, arteriosclerosis and for wound healing. The present sequence is human adipocyte complement related protein homolog zaig39. This protein was used in a sequence homology comparation with acceptance.
                                                                                                                                                                                                                      used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; zacrp6; gene therapy; adipocyte complement related inflammation; hormone secreti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel adipocyte complement related protein homolog, ZACRP6, useful as modulators of neurotransmission and for treating disseminated intravascular coagulation, arteriosclerosis and acute vascular injury
                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to human adipocyte complement related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Piddington CS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200073446-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           superoxide anion production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inflammation; hormone secretion; inc
phospholipase C activation; gastric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human adipocyte complement related
                                                                                                                                                                                                                                                                                                                                                                                                          AAC90051).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB49599
                                                                                                                                                                                                                      'n
   61
                                61
                                                                                                                             243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             healing;
                                                              -
                                                                                             ш
                                                                                                                                          Similarity
                 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                                                              MRPLLYLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
   APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; Protein;
                                                                                                                                                                                                                      sequence
                                                                                                                                                                                                                                                                                                                                                                                                       molog, ZACRP6 protein and coding sequence (see AAB49596 and ZACRP6 has a carboxyl-terminal Clq domain. The zacrp6 gene
                                                                                                                                                                                         243 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fig 1; 119pp; English.
                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US14024.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0321262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               zsig39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sheppard
                                                                                                                                                                                                                    homology comparison with ZACRP6 protein
                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gastric emptying;
antimicrobial; ac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein homolog
                                                                                                                          Score 1325; DB 22; Pred. No. 5.3e-103; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inositol phosphate; arachidonate; ric emptying; neutrophil activation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      homolog
                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      zs1g39
                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            activation;
                                                                                                                                                          243;
                                                                                                                          0
                                                                                                                                                                                                                                                                                                                production.
                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                             human
   120
                                                              60
                                                                                               60
```

```
δ
                                      В
                                                        Ş
                                                                               밁
                                                                                               Ş
                                                                                                                       밁
                                                                                                                                        ΩV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                               Query Match
Best Local s
Matches 242
                                                                                                                                                                                                                          The present invention provides the protein and coding sequences of human and murine secreted or transmembrane proteins TANGO 253, TANG TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunologi developmental disorder; kidney disorder
                                                                                                                                                                                                                                                                                                           New nucleic acids for treating diseases and disorders, e.g atherosclerosis, infection, autoimmune diseases, obesity, disorders, brain disorders, tumors, diabetes, arthritis, m sclerosis and asthma
                                                                                                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                  Leiby KR,
                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB65891;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB65891 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                            19-JUN-2000; 2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                     (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12
                     181
                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
  181
                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              secreted
                                                                                61
                                                                                                   61
                                                                                                                                                               l Similarity
242; Conserv
APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                  MRPLLVLLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VFA
                                                                                                                       VFA 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 McKay C,
                                                                                                                                                                                                         243
                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                       Page 274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                         A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein related
                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein;
                                                                                                                                                                         99.8%;
                                                                                                                                                                                                                                                                                                                                                                                  Bossone S;
                                                                                                                                                                                                                                                                                      332pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                              Score 1323; DI
Pred. No. 7.8e
1; Mismatches
                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disorder; immunological disorder;
                                                                                                                                                                                                                                                                                                                    diabetes, arthritis, multiple
                                                                                                                                                                        ; DB 22;
7.8e-103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108
                                                                                                                                                                                 Length
                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                        e.g.
                                                                                                                                                                                  243;
                                                                                                                                                              0;
                                                                                                                                                              Gaps
                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                    240
                                       180
                                                                               120
                                                                                                  120
                                                                                                                       60
                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
AAB65888
                                    Qy
                                                           밁
                                                                            Qγ
                                                                                                  밁
                                                                                                                   ρ
                                                                                                                                          밁
                    ₽
                                                                                                                                                            Q
                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                 Query Match
Best Local S
Matches 242
                                                                                                                                                                                                                                           The present invention provides the protein and coding sequences of human and murine secreted or transmembrane proteins TANGO 253, TANG TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                      New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple
                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INTERCEPT 258; coronary disorder; olfactory neurological disorder; pulmonary disorder; idevelopmental disorder; kidney disorder
                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                         Disclosure; Page 270-271;
                                                                                                                                                                                                                                                                                                                               scierosis and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-DEC-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB65888;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB65888
                                                                                                                                                                                                                                                                                                                                                                                                    Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-JUN-2000; 2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                       (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                 2001-050109/06.
                                       181
                                                            121
                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                    181
                                                                                                                                                                                                                                                                                                                                                                                                    KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                secreted
                                                                                                   61
                                                                                                                       61
                                                                                                                                                                                 al Similarity
242; Conserv
                                                          VFA
                                                                                                              APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                         MRPLLYLLLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VFA
                    FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                             FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                   APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                   McKay C,
                                                                                                                                                                                                                           243
                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                           A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                          99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                    Bossone S;
                                                                                                                                                                                                                                                                                                       332pp;
                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                                                                                                                                                Score 1321; DB 22;
Pred. No. 1.1e-102;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A
                                                                                                                                                                                                                                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunological disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disorder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NO:
                                                                                                                                                                                  Indels
                                                                                                                                                                                                    Length
                                                                                                                                                                                                      243;
                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                  TANGO 257, of
                                                                                                                                                                                  Gaps
                                       240
                                                                                                                                          60
                                                           180
                                                                               180
                                                                                                 120
                                                                                                                      120
```

```
ARBSULT 14
ARB65889
ID ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
AC ARB65
A
밁
                        γQ
                                                          밁
                                                                               Š
                                                                                                                    В
                                                                                                                                              QΥ
                                                                                                                                                                                    밁
                                                                                                                                                                                                         δõ
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; mouse; s
INTERCEPT 258;
neurological di
                                                                                                                                                                                                                                                                                                                                                                                                     The present invention provides the protein and coding sequences of human and murine secreted or transmembrane proteins TANGO 253, TANTANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acids for treating diseases and disorders, e. atherosclerosis, infection, autoimmune diseases, obesity, disorders, brain disorders, tumors, diabetes, arthritis, r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INTERCEPT 258; coronary disorder; olfactory neurological disorder; pulmonary disorder; developmental disorder; kidney disorder.
                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB65889
241
                              241
                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001-050109/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens.
                                                                                         181
                                                                                                                        121
                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KR,
                                                                                                                                                                                     61
                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                            Similarity
                              VFA
                                                                                                                                                                                  MRPLLVLLLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      мскау С,
                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 271-272; 332pp;
243
                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secreted protein; TANGO253; TANGO 257; TANGO
                                                                                                                                                                                                                                                                                                                                                                         ΑĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein;
                                                                                                                                                                                                                                                                                                                            99.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  243
                                                                                                                                                                                                                                                                                                          Score 1321; DB 22;
Pred. No. 1.1e-102;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        y disorder;
immunological disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NO:
                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          e.g.
                                                                                                                                                                                                                                                                                                                                          243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               multiple
                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TANGO
                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of the
                                                                                                                                                                                                                 120
                                                                                                                                                     180
                                                          240
                                                                                     240
                                                                                                                        180
                                                                                                                                                                                    120
                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                        臣
                                                   Qy
                                                                                     밁
                                                                                                                 Qy
                                                                                                                                                     밁
                                                                                                                                                                               Qy
                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                       Ş
```

```
RESULT 15
AAB65890
                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 242
                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides the protein and coding sequences of the human and murine secreted or transmembrane proteins TANGO 253, TANGO 2: TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma
                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 272-273; 332pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-050109/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    neurological disorder; pulmonary disorder; developmental disorder; kidney disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; mouse; :
INTERCEPT 258;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB65890;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB65890 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-MAR-2001
                                                                                                                                                                                                                                                                                                                          Local Similarity nes 242; Conserv
241
                                   181
                                                                      181
                                                                                                          121
                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KR,
                                                                                                                                                                               61
                                                                                                                                                                                                                51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              secreted
                                                                                                                                                                                                                                                    _
                                                                                                                                                                                                                                                  MRPLLVLLLGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG
VFA
                                                       FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                                            APLPEDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                           APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120
                                     FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGIYASIKTDSTFSGFLVYSDWHSSP
                                                                                                            APLPFDRVLANEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ
                                                                                                                                                                                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McKay C,
                                                                                                                                                                                                                                                                                                                          Conservative
243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        secreted protein; Ti
; coronary disorder;
                                                                                                                                                                                                                                                                                                                                                                                               AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                                       99.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              related
                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                       Score 1321; DB 22; Pred. No. 1.1e-102; 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein SEQ ID'NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TANGO253; TANGO 257; TANGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        olfactory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunological disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          disorder
                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                            243;
                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257,
                                                                      240
                                                                                                          180
                                                                                                                                           180
                                                                                                                                                                                                                                                    60
                                     240
```

Search completed: June 13, 2003, 16:00:38 Job time : 73 secs

THIS PAGE BLANK (USPTO)

t

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -Q=/cgn2_1/USPTO_spool/US09944944/runat_13062003_145844_22743/app_query.fasta_1.1543
-DB-A_Geneseq_101002 -QFMY=fastan -SUFFIX=rag -MINNATCH-0.1 -LOOPCL-0
-LOOPEXT-0 -UNITS-bits -START-1 -END-1 -MATRIX=blosum62 -TRANS-human40.cdi
-LISY=45 -DCCALIGN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN-0 -ALIGN=15
-MODE-LOCAL -OUTFMY-pto -NORM-ext -HEAPSIZE-500 -MINLEN-0 -MAXLEN-200000000
-USER-US09944944_@CCM_1_1_5_0 @runat_13062003_145844_22743 -NCPU-6 -ICPU-3
-NO_MMAP -LARGEQUERY -NE_SCORES-0 -WAIT -DSPBLOCK-100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS-1 -XGAPOP=10 -XGAPEXT-0.5 -FGAPOP-6
-FGAPEXT-7 -YGAPOP=10 -YGAPEXT-0.5 -DELOP-6 -DELEXT-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM nucleic - protein search, using frame_plus_n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -MODEL-frame+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n2p.model -DEV-xlh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-944-944-41
2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            June 21, 2003, 14:32:46; Search time 202 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      908470 seqs, 133250620 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A_Geneseq_101002:*
                                                                                                                   | SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1984_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1984_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1985_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1985_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1987_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1988_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1989_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1990_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1990_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1991_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1991_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1992_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1994_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1994_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1994_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1994_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1995_DAT: *
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1999_DAT: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1980.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1981.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2000.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2001.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2002.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (without alignments)
1816.694 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1816940
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	OS Ho			DT 27		Y06		44	42 43	41	39	37 98	ა ა ნ 5	3 3 4 3	32	30	22	26 27	25 #	۱ کا ان کا	21 22	19 20	18	16	1.4 1.5	13	111	10	· co ~	1 0	4 N	- ω	21	Result No.	
Key Peptide Protein	Homo sapien	PRO344; UN	Human tumour	-SEP-199	AAY06481;	1 1 Y06481 s		424 424	424 424	424	424.5	427	433.5 5	446 433.5	449.5	518	675	1183 1048	1200		1256 1254	1258	1271	1271	1321 1321	1321	1325	1325 1325	1325	1325	1325	1325	1325 1325	Score	
Loc 1 /no 16. /no	ns.	UNQ303; ca	-assoc	9 (firs		tandard;						•			18.9										•					•				음	æ
ation 15 te= " .243 te= "		ncer;	iated	t entry)		Protein		244							151 2 225 2												3 43	4 4 3	44	τ τ	43	3 3	4 4 3 3	Length DB	
Qualif gnal ture		tumour; d	protein P			; 243	ΑL	2 AAEC 2 AABC	1 AABS	0 AAY	2 AAEC	3 ABB7	2 AAE(3 ABB(3 ABBE 8 AAWC	2 ABG	2 AAG7	2 AABC	2 ABG1 3 AAO2	2 AAB6	2 AAB	2 AABO	2 AAB6	3 ABB7	1 AAY	2 AABO	2 AAB6	2 AAB4	2 AAB6	2 AAUI	1 AAYS	1 AAY7	0 AAWS	0 AAYO	Ü	SU
iers peptide" protein"		liagnosis; therapy;	PRO344.			AA.	ALIGNMENTS)5529)5828	0233 1035	1807	5527	2306	5528 8222	0582 9107	2723 0583	4016	5819 5824	2724 1663	5821	5898	5899 5897	5816	2179	6040	5889	5888	9599	5815 9593	2352	3688	1468	7984	6481 7827		SUMMARIES
		human.								Adipose	o no :	י סיכ	Mouse OB	Human sb Murine a	Novel hu Human sb	Human co	Human TA	Novel hu		Murine s	Murine s	Murine T Human ma	Rat prot	Rat skin	Human se	Human se		Human TA Human ad		_	Human PR		5 5	Descripti	
								OBG3 protein adipocyte co		e most abund	e OBG3 protein	ein isolat	3G3 protein	dipocyte c	human diagno sbg1033026C1	lon cancer	NGO 253 C1	man diagno	ature TANG	ecreted pr	ecreted pr	mature TANGO	protein isolat	cell prot	secreted pro	secreted pro	adipocyte co	TANGO 253 SE	* 4	è s	14 prot	ocyte-s	tumour-assoc PRO344 prote	on	

```
Alignment Scores:
Pred. No.:
Score:
Score:
Percent Similarity:
Best Local Similarity:
    밁
              γQ
                                  밁
                                              δ
                                                                 В
                                                                                Š
                                                                                                  밁
                                                                                                              Ş
                                                                                                                                                 Best |
Query
DB:
                                                                                                                                                                                                                  US-09-944-944-41 (1-1377) x AAY06481
                                                                                                                                                                                                                                              This sequence represents human pro344 (UNQ303), a protein encoded by the novel cDNA clone DNA40592 (see AAX87258). Amplification of DNA40592 was observed in primary lung tumours and in primary colon tumours suggesting a significant role in tumour formation and growth. Antagonists (e.g. antibodies) directed to pro344 may have use in cancer therapy. The invention identifies 14 genes (see AAX87254-67) that are amplified in the genome of tumour cells. Such amplification is expected to be associated with overexpression of the gene product and to contribute to tumorigenesis. The encoded proteins (see AAY06477-90) may be useful targets for the diagnosis and/or treatment (including prevention) of certain cancers, and may act as predictors of the prognosis of tumour treatment. Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-NOV-1998;
05-JAN-1998;
29-APR-1998;
22-MAY-1998;
10-JUN-1998;
10-NOV-1998;
                                                                                                                                                                                                                                        and/or treatment (including prevention) of certain cancers, act as predictors of the prognosis of tumour treatment. Ant that bind the proteins are claimed and used in claimed cance
                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                  diagnostic kits.
                                                                                                                                                                                                                                                                                                                                                                                Antibody
                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                       Roy
                                                                                                                                                                                                                                                                                                                                                                                                                               Botstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W09935170-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH )
                                                                                                                                                          Match:
                                                                                                                                                                                                                                                                                                                                                                                                1999-430385/36
DB; AAX87258.
                 407
                                                 347
                                                                                 287
                                                                                                                   227
61
                                  41
                                                                  21
                                                                                                                                                                                                                                                                                                                                                                        ody against proteins expressed diagnosis and treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                               GENENTECH
GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                Wood C
                                                                                                                                                                                                                  243
                                                                                                                                                                                                                                                                                                                                                       Fig
                                                                                                                                                                                                                                                                                                                                                                                                                       Goddard
od WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0109304.
98US-0070440.
98US-0083500.
98US-0086414.
98US-0088742.
98US-0107783.
                                                                                                                                                                                                                  Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US00106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              68..215
/note= "N-myristoylated"
216..243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                               INC.
                                                                                                                                                 5.37e-86
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                               P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "N-myristoylated
                                                                                                                                                                                                                                                                                                                                                                                                                               Gurney
                                                                                                                                                                                                                                                                                                                                                        English.
                                                                                                                                 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                               ĄĽ,
                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                                                                                                                                                              Hillan
                                                                                                                                                                                                                                                                                                                                                                               neoplastic
                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                 243
243
0
                                                                                                                                                                                                                                                                                                                                                                                                                               Lawrence
                                                                                                                                                                                                                                                                                                                                                                               cells,
                                                                                                                                                                                                                                         cancer
                                                                                                                                                                                                                                                                                                                                                                               useful
                                 60
                                                 406
                                                                  40
                                                                                                 20
 밁
                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                      뫄
                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
11-DEC-1997
11-DEC-1997
12-DEC-1997
16-DEC-1997
16-DEC-1997
16-DEC-1997
17-DEC-1997
17-DEC-1997
17-DEC-1997
17-DEC-1997
18-DEC-1997
05-JAN-01998
09-FEB-1998
                                                                                                 25-FEB-1998;
03-DEC-1997;
11-DEC-1997;
                                                                                                                                 01-DEC-1998;
                                                                                                                                                                                                secreted
                                                                                                                                                                                                                         Human PRO344
                                                                                                                                                                                                                                         12-AUG-1999
                                                                                                                                                                                                                                                                         AAY17827
                                                                                                                                                 10-JUN-1999
                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                       947
                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                      887
                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                      827
                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       467
                                                                                                                                                                                                                                                                                                                                                                                                                      767
                                                                                                                                                                                                                                                                                                                                                                                                                                                      707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                        ValpheAla
                                                                                                                                                                                                                                                                                                                        GTCTTTGCT
                                                                                                                                                                                                                                        (first
                                                                                                                                                                                                                                                                                                                        955
```

```
PRO protein; tumour necrosis factor family; TNF; ed protein; transmembrane protein; inflammation di
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                             protein sequence
970S-0069335.
970S-0069425.
970S-0069694.
970S-0069696.
970S-0069702.
970S-0069870.
970S-0069873.
970S-0070440.
980S-00704086.
980S-0074092.
                                                                                                                                   97US-0069278
97US-0069334
                                                                                                                                                                     98US-0075945
                                                                                                                                                                                              98WO-US25108
                                                                                                                                                          97US-0067411
                                                                                                                                                                                                                                                                                                                                                                                                     Protein;
                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                           disorder.
```

200

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment :
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-944-944-41 (1-1377) x AAY17827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes nucleic acids encoding PRO secreted and transmembrane proteins used therapeutically. The PRO proteins have cytostatic, anti-inflammatory, anti-proliferative and immunosuppressive activity. The proteins and polynucleotides can be used in therapy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nucleic acids encoding PRO secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Identification of homologues, raising antibodies and design of probes and primers. They can be used in a range of diseases related to proteins that they have homology with, e.g. a PRO protein having homology to complement proteins may be used in inflammatory responses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999-371118/31.
DB; AAX80052.
                                                               707
                                                                                                          647
                                                                                                                                                    587
                                                                                                                                                                          101
                                                                                                                                                                                              527
                                                                                                                                                                                                                                                                                 407
                      767
                                            161
                                                                                     141
                                                                                                                               121
                                                                                                                                                                                                                                       467
                                                                                                                                                                                                                                                                                                                             347
                                                                                                                                                                                                                                                                                                                                                                      287
                                                                                                                                                                                                                                                                                                                                                                                                                 227
   181
                                                                                                                                                                                                                  81
                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                                                                                                                                                                                                                GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCCCCC
                                           ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                     CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                    GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                            AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               123pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        5.37e-86
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
                                                                                                                                                                                                                                                                                                                                                                                                                                    (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0 0 0 0 2 2 4 3 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΨI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proteins
                                           180
                                                                                                                                                   646
                      826
                                                               766
                                                                                      160
                                                                                                          706
                                                                                                                              140
                                                                                                                                                                                             586
                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                       526
                                                                                                                                                                                                                                                                                 466
                                                                                                                                                                                                                                                                                                                           406
                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                                     346
                                                                                                                                                                        120
                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                           20
 RESULT 3
ADW97984
ADW97984
ADW97984
ADW97984
ADW97984
AC AAW
AXC AAW
DT 21.-
XX Adi.
KW ene
XX Adi.
KW ene
XX Hom
XX Hom
XX Hom
XX Hom
FT Pep
FT Pep
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
FT Reg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                               Domain
                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo
            (ZYMO ) ZYMOGENETICS INC
                                 26-AUG-1997;
                                                                                                                                                    Domain
                                                                                                                                                                        Region
                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                      Domain
                                                                                                                                                                                                                                                                                                                                                                                           Domain
```

δÃ 밁 δÃ

밁

Ω 밁 Qy В Qy 밁 δõ 밁 Š

δÃ В δ 밁

밁 δ 밁

97US-0056983

```
Key
Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Adipocyte-specific protein; zsig39; human; energy balance; nutrition; antimicrobial.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human adipocyte-specific protein zsig39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW97984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW97984
                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GICTITGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCAAGACAGACAGCATCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                             98WO-US17724
                                                                                                 /note= "r
111..135
                                                                                                                                                                                                                                    /note= "l
143..146
                                                                                                                                                                                                                                                          /note= "k
                                                                                                                                                                                                                                                                                 /note= "h
128..130
                                                                                                                                                                                                                                                                                                       /note= "0
                                                                           /note=
170..1
                                                                                                                                            /note=
204..2
                                                                                                                                                                                         /note=
176..1
                                                                                                                                                                                                                                                                                                                                                                                              16..
                                                                                                                        226..231
                                                                                                                                                                  187..
                                                                                                                                                                                                                                                                                                                             98..243
                                                                                                                                                                                                                                                                                                                                                                                                      /note= "signal peptide, alternatively the signal
peptide.comprises residues 1..18"
                                                                                                                                  /note-
                                                                                                                                                                              /note*
                                                                                                                                                                                                                                                                                                                                                                                   /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                'note=
                                                                                                                                                                                                                                                                                                                                        'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                             . 174
                                                                                                                                            .210
                                                                                                                                                                  .200
                                                                                                                                                                                         .182
                                                                                     "receptor binding
                                                                                                           "beta
                                                                                                                                                                              "beta
                                                                                                                                                                                                                                                                                                                                        "collagen-like domain"
                                                                                                                                                                                                                                                                                                                                                                      "mature protein, alternatively the mature protein comprises residues 19..243
                                                                "receptor binding
                                                                                                                                  "beta
                                                                                                                                                       "beta
                                                                                                                                                                                                                                                "beta
                                                                                                                                                                                                                                                                    "beta strand"
                                                                                                                                                                                                                                                                                           "beta strand"
                                                                                                                                                                                                                                                                                                                 "globular domain"
                                                                                                                                                                                                                                                                                                                                                             specifically claimed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                strand'
                                                                                                                                                                             strand'
                                                                                                                                                                                                                                               "strand"
                                                                                                             strand"
                                                                                                                                                       strand"
                                                                                                                                                                                                    strand"
                                                                                                                                                                                                                          strand"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                 domain"
                                                                                      domain"
                                                                                                                                                                                                                                                                                                                                                            residues 19.
imed in Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fatty acid metabolism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                886
```

```
Qy
   밁
                                                            밁
                                                                                Qy
                                                                                                                  В
                                                                                                                                            δ
                                                                                                                                                                              뫄
                                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                            5 B
                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                 δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-944-41 (1-1377) x AAW97984 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         member of a family of proteins having a globular domain and a collagen-like domain capable of dimerisation or oligomerisation. CC zsig39 polypeptides were initially identified by querying an EST CC database for secretory signal sequences characterised by an upstream CC methionine start site, a hydrophobic region of approximately 13 CC amino acids and a cleavage site. A single EST sequence was cC discovered, and the novel polypeptide encoded by the full-length CC cDNA allowed the identification of a homologue relationship with CC cDNA allowed the identification of a homologue relationship with CC cDNA allowed the identification of a homologue relationship with CC cDNA allowed the identification of a homologue relationship with CC converse complement related protein Acrp30 and adipocyte secreted CC protein apM1. A full-length clone (see AAX24684) was obtained from a CC lung tissue library. Expression vectors, cultured cells and a CC lung tissue library. Expression vectors, cultured cells and a CC lung tissue library. Expression vectors, cultured cells and a CC zsig39 polypeptides having N or C-terminal affinity tags, toxins, CC radionucleotides, enzymes or flororophores, fusion proteins CC zsig39 polypeptides, an antibody that specifically cC binds to an epitope of zsig39, and a method for modulating free CC fatty acid metabolism by administering a zsig39 polypeptide. The CC zsig39 polypeptide may also be used in organ preservation, for cryopreservation, for surgical pretreatment to prevent injury due to ischaemia and/or inflammation, and as an antimicrobial agent, or remotion lustics or hadrocartosis of infectious accounts.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No . :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zsig39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polypeptide comprises human adipocyte-specific protein zsig39, otein that modulates free fatty acid metabolism. zsig39 is a
                                                            101
                                                                                      527
                                                                                                                                                                                                          407
                                                                                                                                                   467
                                                                                                                                                                                                                                                                                                                                287
                                                                                                                       81
                                                                                                                                                                                61
                                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                                                   21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein - used to
                                                                                                                                                                                                                                                                                               GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                       GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTCGCCGGGACCCCC
                                                                                                                                                                                                                                      GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGCAGCACATTACGACGCCGTCACC
                                                                                                                                                                             AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lysis or phagocytosis of infectious agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.37e-86
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        modulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 243
0 0 0 0
0 0 0 0
                                                                                                                     100
                                                                                                                                                                              08
                                                                                                                                                                                                          466
                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DЬ
```

```
10-MAR-1999
11-MAR-1999
23-MAR-1999
12-APR-1999
20-APR-1999
28-APR-1999
04-MAY-1999
04-MAY-1999
02-JUN-1999
23-JUN-1999
23-JUN-1999
26-JUL-1999
26-JUL-1999
01-SEP-1999
                                                                                                                                                                                                                                                                                    dermatological; antiarthritic; antirheumatic; immunosuppressive; haemostatic; antilhyroid; antidiabetic; noctropic; neuroprotective; antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic; antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis; osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis; idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis; systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus; systemic vasculitis; autoimmune-mediated renal disease; demyelinating disease; hepatobiliary disease; Whipple's disease; inflammatory bowel disease; pluten-sensitive enteropathy; autoimmune disease; immune-mediated skin disease; allergic disease; immunological disease; transplantation associated disease;
                                                                                                                                                                   08-MAR-1999;
                                                                                                                                                                                          02-MAR-2000;
                                                                                                                                                                                                              14-SEP-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB33461
                                                                                                                                                                                                                                                                                                                                                                                                                                             Human PRO344 protein UNQ303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                              rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                       immune related disease; diagnosis; antiinflammatory; cardiant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCAAGACAGACAGCATCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                          2000WO-US05841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
  99US-0123957

99US-0125775

99US-0128849

99WO-US08615

99WS-0131445

99US-0131427

99US-0134287

99WS-0141037

99WS-0144758

99US-0146282

99WS-014628

99WS-014628

99WS-014628
                                                                                                                                                        99WO-US05028
99US-0123618
                                                                                                                                                                                                                                                                              graft-versus-host-disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              955
                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                                                                                                             ID NO:241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
```

```
Š
                                                                                        Best I
Query
DB:
                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                            Pred.
Score:
                                                                                                                                                                                                                               US-09-944-944-41 (1-1377) x AAB33461
                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                        proteins, anti-pro antibodies, agonists and antagonists are useful for contracting and diagnosing immune related disorders. The disorders are selected from systemic lupus erythematosus, rheumatoid arthritis, consteoarthritis, juvenile chronic arthritis, spondyloarthropathies, consteoarthritis, juvenile chronic arthritis, spondyloarthropathies, consteoarthritis, juvenile chronic arthritis, spondyloarthropathies, consteoarthritis, idiopathic inflammatory myopathies, contractive systemic vasculitis, sarcoidosis, autoimmune haemolytic candemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus, considered renal disease, demyelinating diseases of the central candemia, autoimmune systems, hepatobiliary diseases, inflammatory bowel disease, gluten-sensitive enteropathy and Whipple's disease, cantoimmune or immune-mediated skin diseases, lalergic diseases, cantoimmune or immune-mediated skin diseases, lalergic diseases, cantoimmune or immune-mediated skin diseases, lalergic diseases. Cantoimmune of human Propertion and graft-versus-host-disease. AAC58397 to AAC58578 represent PCR primers and hybridisation probes used in the isolation of human PRO sequences. AAC58672 to AAC58672 and constant of human PRO sequences. AAC58672 to AAC58672 and protein in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-SEP-1999
15-SEP-1999
15-SEP-1999
15-SEP-1999
29-OCT-1999
29-NOV-1999
30-NOV-1999
30-NOV-1999
01-DEC-1999
01-DEC-1999
02-DEC-1999
03-DEC-1999
03-DEC-1999
04-JAN-2000
06-JAN-2000
01-FEB-2000
01-FEB-2000
01-FEB-2000
                                                                                                        Local Si
y Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sixty four PRO polypeptides, useful in the diagnosis and treatment of immune related disorders, e.g. systemic lupus erythematosis, rheumatoid arthritis, osteoarthritis, thyroiditis and diabetes mellitus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes sixty four human PRO proteins which be used in the treatment of immune related diseases. The human PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ashkenazi AJ,
Kabakoff RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH
                                                                                                                                                                             No . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000-572271/53.
)B; AAC58626.
                       227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENENTECH
                     ATGAGGCCACTCCTCGTGCTGCTGCTCCTGGGGCCTGGCCGGCTCGCCCCCACTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fig
   243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US31274,
2000WO-US31277,
2000WO-US00219,
2000WO-US00277,
2000WO-US00376,
2000WO-US03565,
2000WO-US04341,
2000WO-US043414,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tumas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US28409.
99WO-US28301.
99WO-US28634.
99WO-US28551.
99WO-US28564.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baker KP,
Lu Y, Pan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lu Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US28214
99WO-US28313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US21547
99WO-US23089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US20944
99WO-US21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US30095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US28565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               309pp;
                                                                                      5.37e-86
1325.00
100.00%
100.00%
52.17%
21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -0162506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (P, Goddard A,
Pan J, Pennica
Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
                                                      (1-243)
                                                                                                                                       Length:
Matches:
Conservative:
                                                                                      Gaps:
                                                                                                        Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gurney AL, Hebon, Shelton DL, Wood WI, Yan M;
                                                                                    243
243
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hebert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Henzel
                                                                                                                                                                                                                                                                                                                  used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Σ
                   286
ARZSULT 5
AAX711468
ID AAX77
XX AAY7
XX AAY7
XX AAY7
XX PRO3
XX PRO3
XX PRO3
XX PRO3
XX PRO3
XX PRO5
XX Homo
XX CNS;
XX EXTENTION TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             · Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                    Key
Peptide
                                                                                                                                                       PRO344; DNA40592-1242; neoplastic cell growth breast; prostate; colon CNS; leukemia; melanoma
                   Modified-site
                                                                                                        Homo
                                                                                                                                         extracellular
                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                08-NOV-2000
                                                                                                                                                                                                                                                                                                                  AAY71468;
                                                                                                                                                                                                                                                                                                                                                 AAY71468
                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                      947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              527
                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        347
                                                                                                                                                                                                                                              PRO344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                   GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            {\tt ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProSerAsp}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCCGGGAGAAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                              protein.
                                                                                                                                                                                                                                                                              (first
                                                                                                                                          domain;
                                                                                                                                                  92-1242; human; ATCC No: 209492; antiprolify a growth inhibitor; cytostatic; treatment; te; colon; lung; renal; ovarian; central ne melanoma; Expressed Sequence Tag; EST; sec
                   /label=
11..17
   /note=
                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                              entry)
                                                                                                                                          ECD
 "N-myristoylation
                                  Signal_peptide
                                                                                                                                                                                                                                                                                                                                                    243
                                                                                                                                                                                                           ATCC No: 209492; antiproliferative;
                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                       nervous
                                                                                                                                                                                           cancer;
```

160

706 140 646 120 586

180 766

946

220

240

886

200 826 100 526

80 466 60 406

system; tumour;

```
밁
                                             Š
                                                                                                          Š
                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                 Best DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                B
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                  US-09-944-944-41 (1-1377) x AAY71468
                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
20-JUL-1999;
26-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence is the human PRO344 protein, encoded by the cDNA clone, designated as DNA40592-1242. It is isolated from human foetal lung tissue, cDNA library, identified using probes based on a consensus sequence DNA34398, derived from secreted protein extracellular domain (ECD) expressed sequence tag (EST). This clone is assigned ATCC deposit No: 203492. PRO344 functions as a neoplastic cell growth inhibitor and is used for treating tumours, using an effective amount of PRO655, PRO364 and PRO344. This composition is especially useful for treatment of human cancers such as breast, prostate, colon, lung, renal, ovarian and CNS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating cancers, their antagonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200032778-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          composition useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ġ
                                                 407
                                                                                                               347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000-412325/35.
)B; AAD01241.
                                                                                                                                                                                  287
                61
                                                                                 41
                                                                                                                                                   21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           such as breast, prostate, and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENENTECH INC.
             CATGGCAGCCAGGGCTTGCCGGGCCGGGATGGCCGCGACGGCCGCGACGGCCGCGCGGGG
                                                                                                                                              GACAACAAGATCCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                 HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F1g 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US25108.
98US-0112850.
98US-0113296.
98US-0144758.
99US-0145698.
                                                                                                                                                                                                                                                                                                                                                                                                                                              AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16..243
/label=
68..74
/note= "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US28409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
216..22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              comprises
                                                                                                                                                                                                                                                                                                                 5.37e-86
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for inhibiting neoplastic cell growth and rises PRO655, PRO344 or PRO364 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Cell attachment sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "N-myristoylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mature_PRO344_protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ΑL,
                                                                                                                                                                                                                                                                                 (1-243)
                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Napier
                                                                                                                                                                                                                                                                                                                 243
0 43
0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        orfor
                                                                                                               406
                80
                                                                              60
                                                                                                                                                40
                                                                                                                                                                                346
                                                                                                                                                                                                                20
RRESULT 6
AAY93ASA
ID AAX93
XX AAAY9
XX AAAY9
XX PRO2
DT 03-C
DT 03-C
C
XX PRO2
XX PRO2
XX PRO2
XX PRO7
XX C
SS Home
XX Key
FT Pept
FT Pept
FT Pod1
FT Re91
FT Mod1
FT ST Mod1
FT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ν
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                Homo
```

ũ

```
22-DEC-1998;
08-MAR-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                   PRO201;
PRO715;
                                                                                               WO200037640-A2
                                                                                                                                   Modified-site
                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                      Amino
                                                                                                                                                                                                                                                                                                                                                             03-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                          AAY93688
                                                16-DEC-1999;
                                                                       29-JUN-2000
                                                                                                                                                         Region
                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                                                         tumourigenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               467
                                                                                                                                                                                                                                                                                                                                      acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                       PRO292; PRO327; PRO1265; PRO344; PRO343;
PRO1017; PRO1112; PRO509; PRO853; PRO882;
genesis; cancer; neoplastic cell growth; c
                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCAAGACAGACAGCCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                      sequence
                                                                                                                                                                                                                                                                                                                                                            (first entry)
 98US-0113296.
99WO-US05028.
99WO-US12252.
                                                99WO-US30095
                                                                                                                                 /note=
216..2
                                                                                                                                                                                /note-
68..74
                                                                                                                                                         /note-
77..80
                                                                                                                                                                                                        /note-
11..17
                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                          Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              955
                                                                                                                                                                                                                                                                                                                                      of novel
                                                                                                                                            "cell attachment sequence"
                                                                                                                      "N-myristoylation site"
                                                                                                                                                                    "N-myristoylation
                                                                                                                                                                                          "N-myristoylation
                                                                                                                                                                                                                   "signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                                                                                                                                                                                                                                                                                                     polypeptide PRO344
                                                                                                                                                                                                                                                                                                                                                                                                           A
                                                                                                                                                                     site"
                                                                                                                                                                                             site"
                                                                                                                                                                                                                                                                                       3; PRO347; PRO357;
2; tumour cell;
cell proliferation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100
```

240

220

```
Alignment:
Pred. No.:
Score:
                 g Q
                                    Дδ
                                                δÃ
                                                           밁
                                                                       δÃ
                                                                                      В
                                                                                                Qy
                                                                                                         В
                                                                                                                     Ωy
                                                                                                                                    밁
                                                                                                                                            γQ
                                                                                                                                                          В
                                                                                                                                                                     ρy
                                                                                                                                                                                              Best I
Query
DB:
                                                                                                                                                                                                                                           Š
                                                                                                                                                                                 US-09-944-944-41 (1-1377) x AAY93688
                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                01-SEP-1999;
15-SEP-1999;
30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                   Botstein Wood WI;
                                                                                                                                                                                                                                                          The present sequence represents a novel human polypeptide. The specification describes novel polypeptides designated PRO201, PRO292, PRO327, PRO3165, PRO344, PRO345, PRO357, PRO715, PRO1017, PRO509, PRO509, PRO503 and PRO5082. These genes are amplified in the genome of tumour cells. The polypeptides are believed to contribute to tumourigenesis. The polypeptides are useful target for the prognosis of tumour treatment. Antibodies against these polypeptides are useful in the treatment and diagnosis of neoplastic cell growth and proliferation to manning.
                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                      Claim
                                                                                                                                                                                                                                                                                                                                New anti-polypeptide antibody useful in neoplastic cell growth and proliferation
                                                                                                                                                                                                                                                                                                                                                   N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC.
                                                                                                                                                                                                    Match:
                                                                                                                                                                                                                                                      proliferation in mammals.
                            587
                                                                                                                                                                                                                                Scores:
                                                                                                                                                                                                                                                                                                                                                   2000-452188/39.
)B; AAA46907.
      647
                 121
                                        101
                                                   527
                                                                           467
                                                                                                  407
                                                                                                                        347
                                                                                                                                                                                                                                                                                                                      61;
                                                                                                                                                287
                                                                                                                                                                       227
                                                                                                                                                                                                        Similarity:
                                                                                                             41
                                                              81
                                                                                      61
                                                                                                                                    21
                                                                                                                                                           ب
                                       Ď,
      GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                      Fig
243
                                                                                                                                                                                                                                                                                                                                                                         Goddard
                                                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                                                                                                                                                                                                                               99WO-US20111.
99WO-US21090.
99WO-US28313.
99WO-US28409.
99WO-US28301.
99WO-US28565.
                                                                                                                                                                                                                                                                                                                     220pp;
                                                                                                                                                                                             5.37e-86
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                         ۶
                                                                                                                                                                                                                                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                         Gurney
                                                                                                                                                                                 (1-243)
                                                                                                                                                                                                                                                                                                                                                                         ΑL,
                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                         Hillan
                                                                                                                                                                                                                                                                                                                                      the
                                                                                                                                                                                                                                                                                                                                                                         7
                                                                                                                                                                                                                                                                                                                                       treatment
                                                                                                                                                                                           ,0000.22
44
88
                                                                                                                                                                                                                                                                                                                                                                         Lawrence
                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                         DA,
                                                                                                                                                                                                                                                                                                                                       diagnosis
                                                                                                                                                                                                                                                                                                                                                                         Roy
                                                                                                                                                                                                                                                                                                                                                                         MA;
                                                                                                                                                                                                                                                                                                                                       of.
                           646
                                                              100
                                        120
                                                   586
                                                                                                466
                                                                                                                        406
                                                                                                                                             346
                 140
                                                                         526
                                                                                     80
                                                                                                           60
                                                                                                                                   40
                                                                                                                                                          20
밁
                                                                                                                                                                                                                                                                                                                   ğ
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                     뫄
                                                                                                                                                                                                                                                                                                                                                                                                                QY
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
```

```
RESULT 7
AAB01318
ID AAB0
                                                                                                                                                                             Gerritsen N
Hillan KJ,
                                                                                                                                                                                                                                                                                                                                                     01-DEC-1998;
16-DEC-1998;
22-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB01318
New human nucleic acids encoding secreted and transmembrane polypeptides, designated as PRO polypeptides, useful as pha
                                                                                           N-PSDB;
                                                                                                                                                                                                                                       Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200032776-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO; membrane bound protein; secreted protein; PRO357; PRO327; PRO243; PRO715; PRO241; PRO323; PRO299; PRO235; PRO344; PRO347;. PRO355; PRO353; PRO361; PRO365; Transmembrane polypeptide; PRO355; PRO356; PRO356; PRO356; PRO356; PRO356; PRO356; PRO366; PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human PRO344 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB01318;
                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-SEP-2000
                                                                                           2000-412324/35
DB; AAA49560.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCTTTGCT
                                                                                                                                                                          ME, Godda
, Kljavin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCAAGACAGACAGCATCTCCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                    Botstein D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                             Goddard
javin IJ,
                                                                                                                                                                                                                                                                                                                                                  98WO-US25108.
98US-0112850.
98US-0113296.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /label=
216..222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note=
68..74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label=
11..17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note=
77..80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     222
                                                                                                                                                                                                         ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "N-myristoylation
                                                                                                                                                                             Eaton DL, F
A, Godowski
Napier MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "N-myristoylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cell attachment sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
                                                                                                                                                                          Ferrara N, Filvaroff E;
1 PJ, Grimaldi CJ, Gurn,
, Roy MA, Tumas D, Woo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              site
                                                                                                                                                                                Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160
```

polypeptides, d and diagnostic

agents

pharmaceutical

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                         Alignment
Pred. No.:
             В
                         δ
                                        밁
                                                  Ϋ́
                                                                문
                                                                            Q
                                                                                        뫄
                                                                                                       Q
                                                                                                                        밁
                                                                                                                                 δð
                                                                                                                                              Вb
                                                                                                                                                            QΥ
                                                                                                                                                                             밁
                                                                                                                                                                                      δÃ
                                                                                                                                                                                                       멍
                                                                                                                                                                                                                 ρy
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                          DЬ
                                                                                                                                                                                                                                                                     δõ
                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                           ρy
                                                                                                                                                                                                                                                                                                                                                         Best I
Query
DB:
                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-41 (1-1377) x
                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                        proteins small mol
                                                                                                                                                                                                                                                                                                                                                                                                                                                          The
                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                           No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      including as
                                                                                                                                                                                                                                                                                                                                                                 Match:
                                                                                                                                                                                                                                                                                                                                                                                                                          ypeptides which are designated as PRO polypeptides are described membrane-bound proteins have various industrial applications, luding as pharmaceutical and diagnostic agents. The membrane-bound teins can also be employed for screening of potential peptide or 11 molecule inhibitors of the relevant receptor/ligand interaction.1-PRO antibodies are useful for the affinity purification of PRO m recombinant cell culture or natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human nucleic acids
947
                                        201
                                                                   181
                                                                                             161
                                                                                                                        141
                                                                                                                                     647
                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                Scores:
                                                                                767
                                                                                                          707
                                                                                                                                                                             101
                                                                                                                                                                                          527
                                                                                                                                                                                                                    467
                                                                                                                                                                                                                                              407
                                                                                                                                                                                                                                                                         347
                                                                                                                                                                                                                                                                                                                               227
                                                                                                                                                                                                       81
                                                                                                                                                                                                                                  19
                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                      21
 GTCTTTGCT
            ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCCGACTGGCACAGCTCCCCA
                                       CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                      GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fig
                                                                                                                                                                                                                                                                                                                                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18;
                                                                                                                                                                                                                                                                                                                                                                                                              A,
                                                                                                                                                                                                                                                                                                                                                         5.37e-86
1325.00
100.00%
100.00%
52.17%
 955
                                                                                                                                                                                                                                                                                                                                            AAB01318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                            (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         secreted and transmembrane
                                                                                                                                                                                                                                                                                                                                                       Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                        243
000
000
                                                                                                                                                              646
                          946
                                                     886
                                                                  200
                                                                               826
                                                                                            180
                                                                                                         766
                                                                                                                       160
                                                                                                                                    706
                                                                                                                                                 140
                                                                                                                                                                                         586
                                                                                                                                                                                                       100
                                                                                                                                                                                                                                              466
                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                      40
                                                                                                                                                                            120
                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                 20
```

Baker KP, Gerritsen Smith V,

Beresini M, ME, Goddard Stewart

TA,

A, Go Tumas

Deforge L, Desnoyers L, A, Godowski PJ, Gurney Tumas D, Watanabe CK, W

y AL, She Wood WI,

Filvaroff E, L, Sherwood Zhang

ŝ

Σ

WPI; 200 N-PSDB;

2001-408281/43)B; AAS21424.

AAU12172-AAU12446 represent novel human secretory and transmembrane PRO polypeptides. The PRO polypeptides are useful to detect other PRO polypeptides, to link bioactive molecules to cells expressing

Isolated, secretory and transmembrane PRO other PRO polypeptides, link bioactive mol PRO polypeptides, and detect the presence lung, breast, prostate, cervical

polypeptide used to detect lecules to cells expressing of mammalian tumours e.g.

Claim

12;

Fig

813pp;

English

```
RESULT 8
AAU12352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                          21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
                                                                                                                                                                                               24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
20-MAR-2000;
                                                                                                                                              22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
10-NOY-2000;
                                                                                                                                                                                                                                                                       16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                 06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                             Human secretory and transmembrane; PRO; mammallan; cancer; breast; prostate; cervical; tumour necrosis factor-alpha; T cartilage; ear; proliferation; glucose; free fatty acid; sk adipocyte; A-peptide; factor VIIA; gene therapy.
                                                                                                                                                                                                                                                                                                    09
                                                                                                                                                                                                                                                                                                                                                                    07-JUN-2001
                                                                                                                                                                                                                             22-FEB
                                                                                                                                                                                                                                    18-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                       01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                      01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU12352
                                                                                                                                (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRO344
                                                                                                                                GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                        2000WO-US00277.

2000WO-US00376.

2000WO-US03565.

2000WO-US04341.

2000WO-US04314.

2000WO-US04914.

2000WO-US04914.

2000WO-US05004.

2000WO-US07377.

2000WO-US07377.
                                                                                                                                                     2000WO-US08439.
2000WO-US13705.
2000WO-US14042.
2000WO-US14941.
2000WO-US15264.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 polypeptide sequence
                                                                                                                                                                                                                                                                                                                                                      2000WO-US32678
                                                                                                                                                                                                                                                                       99WO-US30999.
99WO-US31243.
                                                                                                                                                                                                                                                                                     99WO-US30095.
                                                                                                                                                                                                                                                                                                                        99WO-US28634
99WO-US28551
                                                                                                                                                                                                                                                                                                          99WO-US28565
                                                                                                                                                                                                                                                                                                                  99WO-US28564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            243
                                                                                                                                                                                                                                                                                                                                                                                                                      skeletal
```

muscle;

```
Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                         ρ
γ
                                                                                                                                                                                                                                                                                                                                                                                                 ν
                                                                                                                                                                                                                                                                                                                                                                                                                                 dq
VQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                          В
8
                                                                                                                                                                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      γ
                                                                                     Š
                                                                                                                            밁
                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-944-944-41 (1-1377) x AAU12352
   β Q
                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRO polypeptides, and to detect the presence of mammalian lung, colon, and breast, prostate, rectal, cervical or liver tumours by comparing PRO polypeptide expression in a cell sample to that in a control sample. CC some of the 275 sequences are also useful to stimulate the release of the color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color color colo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polypeptides, to modulate biological activities of cells
                                                                                          767
                                                                                                                            161
                                                                                                                                                                                        141
                                                                                                                                                                                                                   647
                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                               587
                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                                         467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    347
   201
                                827
                                                               181
                                                                                                                                                         707
                                                                                                                                                                                                                                                                                                                                             527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 287
                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                       CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTTCTTCCAG
                                                                                                                                                                                                                                               GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                            ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5.37e-86
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
0
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             expressing
                                                                                          826
                                                                                                                                                                                                                                                                            646
                                                             200
                                                                                                                          180
                                                                                                                                                                                      160
                                                                                                                                                                                                                     706
                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                           586
                                                                                                                                                                                                                                                                                                                                                                        100
                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                        766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
```

```
ARBSULT 9
ARAB65 11
ID ARAB6
XX ARAB6
XX ARAB6
XX ARAB6
XX Huma
XX Huma
XX Huma
XX Huma
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX Hom
                                                                                   밁
                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
                                 QΥ
                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                       US-09-944-944-41
                                                                                                                                                                                                                 DB:
                                                                                                                                                                                                                                                                                                     Score:
                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human
TANGO
                                                                                                                                                                                                                                                                                                                                                                                                                             coronary, pulmonary, olfa
developmental and kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human TANGO 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB65815;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB65815
                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention provides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                         No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-050109/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                         287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9;
                                                                                   Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCTTTGCT
Page 211-212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                          nt invention provides the protein and coding murine secreted or transmembrane proteins TP and INTERCEPT 258. These are useful in the t pulmonary, olfactory, immunological, neurolental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McKay C,
                                                                                                                                                                     (1-1377) \times AAB65815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                955
                                                                                                                                                                                                               5.37e-86
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    332pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                     (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ą.
                                                                                                                                                                                                           Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
                                                                                                                                                                                                               243
0 0 43
0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TANGO 253,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TANGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of the
                                         346
                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    946
```

밁

```
RESULT 10
AAB49593
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                              . 2
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                             γ
                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                   07-DEC-2000.
                                                                                  Homo
                                                                                                       inflammation; hormone secretion; inositol phosphate; arachidonate; phospholipase C activation; gastric emptying; neutrophil activation; superoxide anion production; antimicrobial; acute vascular injury;
                                                                                                                              Human; zacrp5; gene therapy; complement inhibition; C1q
adipocyte complement related protein homolog;
                     27-MAY-1999;
                                                                   WO200073444-A1
      (ZYMO)
                                   18-MAY-2000;
                                                                                                 wound
                                                                                                                                                                                                   AAB49593
                                                                                                                                                    Human adipocyte complement related protein homolog zsig39
                                                                                                                                                                     13-MAR-2001
                                                                                                                                                                                    AAB49593;
                                                                                 sapiens
                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                               947
                                                                                                                                                                                                                                                                            887
                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                        827
                                                                                                                                                                                                                                                                                                                                      767
                                                                                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                                                                                    141
                                                                                                                                                                                                                                                                                                                                                                                                  647
                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                               527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                                                                                    707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       347
                                                                                               healing; zsig39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41
       ZYMOGENETICS
                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                        GCACCCTTGCCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                              GICTITIGCT 955
                                                                                                                                                                                                                                                                     ATCAAGACAGACAGCTTCTCCGGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                      {\tt GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCCGCGAGGAGAGGCGGGACCCGCGGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                 ValPheAla
                                                                                                                                                                                                                                                            IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                     ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                  AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                    2000WO-US13608
                                                                                                                                                                    (first entry)
                     9905-0321372
                                                                                                                                                                                                   Protein;
                                                                                                                                                                                                                                243
                                                                                                                                                                                                   243
                                                                                                                                      domain;
                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                           946
                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                       988
                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                   766
                                                                                                                                                                                                                                                                                                                                                                                   160
                                                                                                                                                                                                                                                                                                                                                                                                  706
                                                                                                                                                                                                                                                                                                                                                                                                                  140
                                                                                                                                                                                                                                                                                                                                                                                                                                646
                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      406
```

```
Alignment Scores: Pred. No.:
                                                                                                                                                                       remodelling, for modulating calcium ion concentration, hormone secretion, DNA synthesis or cell growth, inositol phosphate turnover, archidonate release, phospholipase C activation, gastric emptying, huneutrophil activation or ADCC capability and superoxide anion productizacrp5 gene and protein are also useful as antimicrobial applications, preferably against bacteria and virus, for complement inhibition, for
                                                                                                                                                                                                                                                                                         protein homolog, zacrp5 protein and coding sequence (see AAB49590 AAC90045). ZACRP5 has a carboxyl-terminal Clq domain. The zacrp5 glocated on human chromosome 16. zacrp5 gene and protein are useful diagnosing and treating inflammations, for determining arterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel adipocyte complement related protein homolog, ZACRP5, use diagnosing and treating inflammation, vascular injury microbial infections, and in wound healing -
                                                                                                                treating acute vascular injury, and for wound healing. The present sequence is human adipocyte complement related protein homolog, zsig39 protein. This protein was used in a sequence homology alignment with
                                                       Sequence
                                                                                             zacrp5
                                                                                                                                                                                                                                                                                                                                                                           The present invention
                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Piddington
                                                                                           protein.
                                                         243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cs,
                                                                                                                                                                                                                                                                                                                                                                                                                Fig 1; 121pp; English.
                                                         A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sheppard
                                                                                                                                                                                                                                                                                                                                                                             relates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                         to human adipocyte complement related
                                                                                                                                                                                                                                                                                                              1q domain. The zacrp5 gene and protein are useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         useful
                                                                                                                                                                                                                  production
                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                    for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                                                                                                                                                                                                                                      human
                                                                                                                                                                                                                                                                                                                                      is
```

US-09-944-944-41 (1-1377) x AAB49593 (1-243)

Percent Similarity:
Best Local Similarity:
Query Match:
DB:

5.37e-86 1325.00 100.00% 100.00% 52.17%

Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:

Score:

Db	Qy	Дb	Qy	B	Qy	Вb	Qy	Ъ	Qy	Вb	Qγ	рр	Qγ	Ф	νQ	망	Qy
Į.	7.	ė	ō.	н	Ų	-	ر. ن		4		4		ω		N		N
161	707	141	647	121	587	101	527	81	467	61	407	41	347	21	287	-	227
ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln 180	CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCAFTGCCTCTTTCTTCCAG 766	GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 160	GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC 706	AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr 140	GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC 646	ProproArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp 120	CCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC 586	GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal 100	GGGCCGCGAGGAGAGAGGCGGGACCCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG 526	AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro 80	GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC 466	HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly 60	CATGGCAGGCCAGGGCTTGCCGGGCCGGGCGGGATGGCCGGGCGGCGCGGCGCGGGGCGCGGGGCGGGGGCGGGG	AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis 40	GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCCAGGCACGCCGGGCCAC 346	MetargProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp 20	ATGAGGCCACTCCTCGTCCTGGCTCCTGGGCCTGGCCGGCTCGCCCCCACTGGAC 286
J	U1	J	o	J	o	0	o	. 0	6		σ		σ		0		6

```
RESULT 11
AAB49599
ID AAB49599
ID AAB49599
ID AAB49599
ID AAB4
XX AAB4
XX AAB4
XX AAB4
XX Huma
ID Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
               CC Protein homolog, ZACRP6 protein and coding sequence (see AAB49596 and CC AAC90051). ZACRP6 has a carboxy1-terminal C1q domain. The zacrp6 gene is CC located on human chromosome 21q. zacrp6 gene and protein are useful for CC diagnosing and treating inflammations, for determining arterial CC remodelling, for modulating calcium ion concentration, hormone CC secretion, DNA synthesis or cell growth, inositol phosphate turnover, CC arachidonate release, phospholipase C activation, gastric emptying, human CC neutrophil activation or ADCC capability and superoxide anion production. CC preferably against bacteria and virus, for complement inhibition, for CC treating acute vascular injury, disseminated intravascular coagulation, CC arteriosclerosis and for wound healing. The present sequence is human CC adipocyte complement related protein homolog zsig39. This protein was used in a sequence homology comparison with ZACRP6 archain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ρ
                                                                                                                                                                                                                                                                                                                                                                                    Novel adipocyte complement related protein homolog, ZACRP6, useful as modulators of neurotransmission and for treating disseminated intravascular coagulation, arteriosclerosis and acute vascular injury
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB49599;
                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Piddington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200073446-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           inflammation; hormone secretion; inositol phosphate; arachidonate; phospholipase C activation; gastric emptying; neutrophil activatio superoxide anion production; antimicrobial; acute vascular injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-MAY-2000; 2000WO-US14024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; zacrp6; gene therapy; complement inhib
adipocyte complement related protein homolog;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human adipocyte complement related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB49599 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ZYMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001-061532/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GICTITGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cs,
                                                                                                                                                                                                                                                                                                                                Fig 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         zsig39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9905-0321262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            955
                                                                                                                                                                                                                                                                                                                              119pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein; 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        РО
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein homolog zsig39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clq domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               activation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                             밁
                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
   EXTXXX
                                                                                                                                   AAB65891
                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
Human secreted protein related protein SEQ
                                       28-MAR-2001
                                                                             AAB65891;
                                                                                                                   AAB65891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                           241
                                                                                                                                                                                                                                 947
                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                        827
                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ь
```

```
US-09-944-944-41 (1-1377) x AAB49599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
standard;
                                           ValPheAla
                                                               GICTTIGCT 955
                                                                                                                               CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                       AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                     GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                         {\tt ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProSerAsp}
                                                                                                                                                                                                                                                                                                                                                                     CCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTGCCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGCGAGGAGAGCCGGGACCCGCGGGGCCCACCGGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCCGGGAGAGAAAGGCGAGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ጀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.37e-86
1325.00
100.00%
100.00%
52.17%
Protein;
                                         243
243
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length: Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   946
                                                                                                                                                        886
                                                                                                                                                                                                                                                                                                                                                                               586
                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                                                                           526
                                                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         286
```

20

(first entry)

ID NO:

108

240

220

```
Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                      õ
                                                            日
                                                                                      δō
                                                                                                                            밁
                                                                                                                                                                  Ş
                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                         ρ
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-41 (1-1377) x AAB65891 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, TANGO 281 and INTERCEPT 258. These are useful in the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281; INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pulmonary disorder; immunological disorder; developmental disorder; kidney disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            developmental and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MILL-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200078808-A1
                      587
                                                            101
                                                                                                  527
                                                                                                                                                                        467
                                                                                                                                                                                                                                                     407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001-050109/06.
                                                                                                                                                                                                                                                                                                                                 347
                                                                                                                                                                                                                                                                                                                                                                                                              287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens.
                                                                                                                                      81
                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MILLENNIUM
GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACC
                                                        and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 McKay C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US16883.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0336536.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.45e-86
1323.00
100.00%
99.59%
52.09%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            olfactory, imm
dney disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        332pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunological,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              neurological,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   243
242
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                s of the
TANGO 257;
of
                    646
                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                                                                                                                                                                                                                                                                                                                                                                20
```

```
RESULT 13
AAB65888
ID AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX AAA66
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                              The present invention provides the protein and coding sequences human and murine secreted or transmembrane proteins TANGO 253, Tango 281 and INTERCEPT 258. These are useful in the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of the treatment of 
                                                                                                                                                                                                                                                                                                                             New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB65888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leiby KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001-050109/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MILLENNIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GICTITGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerLeuAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McKay
                                                                                                                                                                                                                                                                Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0336536.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ç
                                                                                                                                                                                                                                                                270-271;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bossone
                                                                                                                                                                                                                                                            332pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               160
```

Alignment

Sequence

243

A,

coronary, pulmonary, olfo developmental and kidney

olfactory, im dney disorders.

immunological,

neurological,

```
Pred. No. Score:
Score:
Percent Similarity:
Pest Local Similarity:
Pest Arch:
RESULT 14
AAB65889
ID AAB65
XX
XX
AC AAB65
XX
DT 28-M2
XX
DT 28-M2
XX
INTEL
                                                          ОУ
ОУ
ОУ
                                                                                             24
64
64
                                                                                                                       Ş
                                                                                                                                   밁
                                                                                                                                        Ş
                                                                                                                                                           Qy
                                                                                                                                                                                                       무양
                                                                                                                                                                                                                            Ъ
                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                     δõ
                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                  В
                                                                                                                                                                    P
V
                                                                                                                                                                                      g
VQ
                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                    US-09-944-944-41 (1-1377) x AAB65888
              Human secreted
Human; mouse;
INTERCEPT 258;
                       28-MAR-2001
                                                                                    887
                                                                   947
                                                           241
                                                                            221
                                                                                              201
                                                                                                        827
                                                                                                                 181
                                                                                                                         767
                                                                                                                                   161
                                                                                                                                           707
                                                                                                                                                     141
                                                                                                                                                              647
                                                                                                                                                                      121
                                                                                                                                                                                587
                                                                                                                                                                                         101
                                                                                                                                                                                                                    467
                                                                                                                                                                                                                                      407
                                                                                                                                                                                                                                                        347
                                                                                                                                                                                                  527
                                                                                                                                                                                                                                                                          287
                                                                                                                                                                                                           81
                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                 21
                                                           GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                            GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                  ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                             CATGCAGCCAGGCTTGCCGGGCCGGCGATGGCCGCGACGCCCGCGACGGCCCGCGGG
                                                                    GTCTTTGCT
                                                                                                                     standard;
                                                                                                                PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                               HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyValProGly
                       (first
    secreted protein; TANGO253; TANGO 257;
             protein related
                                                                                                                                                                                                                                                                                                              1.03e-85
1321.00
99.59%
99.59%
52.01%
22
                                                           243
                                         Protein;
                      entry)
disorder;
                                         243
             protein
                                         B
                                                                                                                                                                                                                                                                                                     (1-243)
                                                                                                                                                                                                                                                                                                                  Conservative: Mismatches: Indels:
olfactory
                                                                                                                                                                                                                                                                                                              Gaps:
                                                                                                                                                                                                                                                                                                                                Length:
Matches:
              SEQ ID
disorder;
              NO:
                                                                                                                                                                                                                                                                                                              243
242
0
0
     TANGO
                                                                                                                                                                                                                                                        406
                                                                                     946
                                                                                                       886
                                                                                                                200
                                                                                                                         826
                                                                                                                                  180
                                                                                                                                                    160
                                                                                                                                                             706
                                                                                                                                                                      140
                                                                                                                                                                               646
                                                                                                                                                                                        120
                                                                                                                                                                                                 586
                                                                                                                                                                                                          100
                                                                                                                                                                                                                             80
                                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                          346
                                                                                              220
                                                                                                                                           766
        В
               δã
                           밁
                                  δ
                                            밁
                                                   Ş
                                                              Вþ
                                                                     Š
                                                                             В
                                                                                        δ
                                                                                                  밁
                                                                                                          δÃ
                                                                                                                    В
                                                                                                                            Ş
```

```
Alignment
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                          US-09-944-944-41 (1-1377) x AAB65889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention provides the protein and coding sequences of the human and murine secreted or transmembrane proteins TANGO 253, TANGO 25 TANGO 25 TANGO 250, TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               neurological disorder; pulmonary disorder; developmental disorder; kidney disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scores:
                                                587
                                                                         101
                                                                                                527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001-050109/06.
                        121
                                                                                                                                               467
                                                                                                                                                                                                                                                 347
                                                                                                                                                                                                 407
                                                                                                                                                                                                                                                                                                 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KR,
                                                                                                                       81
                                                                                                                                                                         61
                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                         CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                       GGGCCGCGAGGAGAGGCCGGGACCCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                         GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProValGlyGluCysSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 271-272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US16883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                   1.03e-85
1321.00
99.59%
99.59%
52.01%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bossone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    332pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ß
                                                                                                                                                                                                                                                                                                                                                                           (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunological disorder;
                                                                                                                                                                                                                                                                                                                                                                                                   243
242
0
0
                                                646
                                                                         120
                                                                                                 586
                                                                                                                       100
                                                                                                                                                                         80
                                                                                                                                                                                                  466
                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                 406
                                                                                                                                                                                                                                                                                                346
                                                                                                                                                                                                                                                                                                                          20
```

```
Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
                                                                                                             RESULT 15
AAB65890
ID AAB65890
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX AAB65
XX Human
XX Human
XX Human
XX Human
XX Homo
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX ACC
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                          The present invention provides the protein and coding sequences of the human and murine secreted or transmembrane proteins TANGO 253, TANGO 2: TANGO 281 and INTERCEPT 258. These are useful in the treatment of coronary, pulmonary, olfactory, immunological, neurological, developmental and kidney disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO INTERCEPT 258; coronary disorder; olfactory disorder; neurological disorder; pilmonary disorder; immunological didevelopmental disorder; kidney disorder.
                                                                                                                                                                                                                                                                                                                                           New nucleic acids for treating diseases and disorders, e.g. atherosclerosis, infection, autoimmune diseases, obesity, ear disorders, brain disorders, tumors, diabetes, arthritis, multiple sclerosis and asthma
                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                 Disclosure; Page 272-273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Leiby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200078808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB65890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB65890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001-050109/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCTTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTTTCGGGGGGGGCCCAAGCCAGCCTCGCTCTCGGGGGGGCCCATGGTGAGGCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                  243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McKay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US16883.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                À
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'n
  1.03e-85
1321.00
99.59%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bossone
                                                                                                                                                                                                                                                                                               332pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₽
Length:
Matches:
Conservative:
  243
242
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281;
                                                                                                                                                                                                                              257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
```

```
οy
                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity:
Query Match:
DB:
                             맑
                                            δð
                                                              밁
                                                                           20
                                                                                             밁
                                                                                                            δÃ
                                                                                                                            밁
                                                                                                                                         δ
                                                                                                                                                           밁
                                                                                                                                                                         δÃ
                                                                                                                                                                                         밁
                                                                                                                                                                                                    · Q
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                    QY
                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                    QY
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-944-944-41 (1-1377) x AAB65890 (1-243)
241
              947
                              221
                                              887
                                                              201
                                                                              827
                                                                                              181
                                                                                                             767
                                                                                                                             161
                                                                                                                                                           141
                                                                                                                                                                           647
                                                                                                                                                                                          121
                                                                                                                                                                                                         587
                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                       527
                                                                                                                                                                                                                                                                                                    407
                                                                                                                                            707
                                                                                                                                                                                                                                                                     467
                                                                                                                                                                                                                                                                                                                                    347
                                                                                                                                                                                                                                                                                                                                                                   287
                                                                                                                                                                                                                                                      81
                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                                                    21
         GTCTTTGCT
                                                            GCTCCGGGAGAGAAAGGCGAGGGCGGGACGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                   GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                ValPheAla
                             IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                       ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                     GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                  GCACCCTTGCCCTTCGACCGCGTGCTGCTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                          AlaProLeuProPheAspArgValLeuAlaAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                     GGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG 526
                                                                                                                                                                                                                                                                                    AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                   AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
              955
                                                                                                                                                                                                                                                                                                                                                                                                                                  52
22
                                                                                                                                                                                                                                                                                                                                                                                                                                        2.01%
                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                  001
                                                                                                                                                                                                                                                      . 100
```

Search completed: June Job time : 212 secs 21, 2003, 16:01:38

240

220

200 826 180 766 160 706 140 646 120 586

₩,

```
Command line parameters:

-WODEL-frame+_n2p.model -DEV-xlh
-Q-/cgn2_1/USPTO_spool/US09944944/runat_13062003_145847_22834/app_query.fasta_1.1543
-Q-/cgn2_1/USPTO_spool/US09944944/runat_13062003_145847_22834/app_query.fasta_1.1543
-DB-ISSUED_PATENTS_AA -QEMT=fastan -SUFFTX=rai -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS-bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE_pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pto -NORM=ext +HEAPSIZE=500 -MINLEN=0 -MAXDEN=2000000000
-USER=US09944944_@CGN_1_1_13 @runat_13062003_145847_22834 -NCPU=6 -ICPU=3
-NO_MMAP -LARCEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOF=6 -DELEXT=7
                                                                                                                                                                                                                                                                          Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM nucleic -
                                                                                                                                                                                                                                                          ö
      5
6
7
8
9
10
11
                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed.
                                          675
650
433.5
428.5
                                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                    derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein search, using frame_plus_n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-41
2540
1 gactagttctcttqd
                                                                                                                                                                                                                                                                          Query
                                                                                                                                                                                                                                                      Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xgapop 10.0 , Xgapext Ygapop 10.0 , Ygapext Fgapop 6.0 , Fgapext Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 June 21, 2003, 15:54:41; Search time 46.5 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         262574 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BLOSUM62
      52.2
52.2
50.0
49.5
49.4
47.2
26.6
25.6
25.6
117.1
116.9
116.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
                                                                                                                                                                                                                                                          Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29422922 residues
                                      US-09-140-804-2
US-09-336-336-3
US-09-188-930-295
US-09-336-536-10
US-09-336-536-11
US-09-336-536-7
US-09-336-536-7
US-09-336-536-7
US-09-336-536-7
US-08-463-911-2
US-08-463-911-2
US-08-463-911-2
US-08-463-911-2
                                                                                                                                                                                                                                                        Ħ
                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (without alignments)
1742.596 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     525148
                                                                                                                                                                                                                                                      Description
                                                                                                                  Sequence
Sequence
                                                                                                                                                    Sequence
                      Sequence
                                        Sequence
                                                            Sequence
                                                                            Sequence
                                                                                                Sequence
                                                                                                                                                                          Sequence
                                                                                                                                                                                              Sequence
                                                                                                                                                                                                              Sequence
2, Appli
295, Appli
295, Appl
10, Appl
10, Appl
14, Appl
7, Appli
14, Appl
14, Appl
2, Appli
3, Appli
3, Appli
```

ALIGNMENTS

RESULT 1 US-09-140-804-2

GENERAL INFORMATION:

APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49

sequence 2, Application US/09140804 Patent No. 6197930

```
CURRENT APPLICATION NUMBER: US/09/140,804
; CURRENT FILING DATE: 1998-08-26
; EARLIER APPLICATION NUMBER: 60/056,983
; EARLIER APPLICATION NUMBER: 60/056,983
; EARLIER FILING DATE: 1997-08-26
; NUMBER OF SEQ ID NOS: 47
; SOFTWARE: FASTSEQ for Windows Version 3.0
; SEQ ID NO 2
; LENGTH: 243
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-140-804-2

Alignment Scores:
Pred. No.:
Score: 1325.00 Matches: 243
Score: 1325.00 Matches: 243
Score: 1325.00 Matches: 0
Percent Similarity: 100.00% Conservative: 0
Percent Similarity: 100.00% Mismatches: 0
DB: US-09-944-944-41 (1-1377) x US-09-140-804-2 (1-243)
```

Q4 Q5

227

20

GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC

```
APPLICANT: Leiby, K.
APPLICANT: MCKay, C.
APPLICANT: BOSSONE, S.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USIFILE REFERENCE: 7853-144
CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEO ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
                                                                                                                                                                   US-09-
                       Pred.
Score:
                                                                                                                                                                                                δÃ
         Percent Similarity:
Best Local Similari
                                                                                                                                                                                       뮰
                                                                                                                                                                                                               유 상 명
                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                     B &
                                                                                                                                                                                                                                                                                           日
                                                                                                                                                                                                                                                                                                        65 P O5 P O5
                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
     Query Match:
                                     Alignment
                                                   US-09-336-536-3
                                                                                                                                                GENERAL INFORMATION:
                                                        LENGTH: 243
TYPE: PRT
ORGANISM: Homo
                               ŏ
                                                                                                                                                     ce 3, Applic
No. 6406884
                                                                                                                                                                                                                                                                                                                                       647
                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                   767
                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                  587
                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                             527
           Similarity:
                                                                                                                                                                                                                                                                                                             707
                                                                                                                                                                                                                                                                                                                                                                                                                      467
                                                                                                                                                                                                                                                                                                                                                                                                                                                407
                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                              GTCTTTGCT 955
                                                                                                                                                                                       ValPheAla
                                                                                                                                                                                                                ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                          CATGCCAGCCAGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCCGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application
                                                                                                                                                                                                                                                                                                             HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                          sapiens
    3.55e-88
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                             US/09336536
   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                     USES
                                                                                                                    THEREOF
   243
243
0
                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                  826
                                                                                                                                                                                                                                                                                                                                                                  646
                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                466
                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                        988
                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                             766
                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                       706
                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                                                                                                                                                                                      526
                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40
GENERAL INFORMATION:
APPLICANT: Watson, James D.
APPLICANT: Strachan, Lorna
APPLICANT: Strachan, Lorna
APPLICANT: Onrust, Rene
APPLICANT: Murison, James Greg
TITLE OF INVENTION: Compositions Isolated From Title OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000,1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT FILING DATE: 1998-11-09
NUMBER OF SEQ ID NOS: 348
SOFTWARE: FastSEQ for Windows Version 3 0
                                                                                                      RESULT 3
US-09-188-930-295
                                                                                                                          밁
                                                                                                                                   δÃ
                                                                                                                                                     밁
                                                                                                                                                                 S
                                                                                                                                                                               밁
                                                                                                                                                                                         δ
                                                                                                                                                                                                         ₽
                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                        δõ
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                   δõ
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                        Sequence 295, Application Patent No. 6150502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -09-944-944-41 (1-1377) x
                                                                                                                          241
                                                                                                                                       947
                                                                                                                                                     221
                                                                                                                                                                                201
                                                                                                                                                                                             827
                                                                                                                                                                                                          181
                                                                                                                                                                                                                       767
                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                 707
                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                            647
                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                       587
                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                527
                                                                                                                                                                                                                                                                                                                                                                                     407
                                                                                                                                                                                                                                                                                                                                                           467
                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                   41
                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                          ValPheAla
                                                                                                                                                                                                                                                              GICTITICT 955
                                                                                                                                                                                                                                                                                                                                                                               GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                            GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                      GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                        AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                US/09188930A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-336-536-3
                                    Isolated From
For Their Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1-243)
```

586

526 100 60 466

90

346 40

. 20

```
В
RESULT 4
US-09-336-536-10
; Sequence 10, Application
; Patent No. 6406884
; GENERAL INFORMATION:
                                          δ
                                                        ρ
γ
                                                                          8d
8d
                                                                                                           δõ
                                                                                                                          Dy
Qy
                                                                                                                                                       Qy Db
                                                                                                                                                                              δ
                                                                                                                                                                                         β δ
                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                       νQ
                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                             ρy
                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Rat
US-09-188-930-295
                                                                                                                                                                                                                                                                                                                                 US-09-944-944-41 (1-1377) x US-09-188-930-295 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                SEQ
                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PI
                                                                                                                                                                                                                                                                                                                                                                                                                Ħ
                                                                                                                                                                                                                                                                                                                                                                                                               NO
                                                                                                                                                                                                                                                                                                                                                                                                     PRT
                                                                 887
                                                                                                                                                          647
                                                                                        827
                                                                                                                                                141
                                                                                                                                                                      121
                                            947
                                                        221
                                                                              201
                                                                                                    181
                                                                                                               767
                                                                                                                          161
                                                                                                                                     707
                                                                                                                                                                                  587
                                                                                                                                                                                            101
                                                                                                                                                                                                       527
                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                   407
                                                                                                                                                                                                                                                                          347
                                                                                                                                                                                                                                                                                                287
                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                         295
243
                                 GACAACAAGATCCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                         CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                                     GGGCCGCGAGGAGAGGCGGGACCCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                       GTCTTTGCT
                                                            ATCAAGACAGACAGCATCTCCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                       IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                            2.79e-84
1271.00
97.12%
95.06%
50.04%
4
                                            955
           US/09336536
                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                            243
231
7
0
                                                                  946
                                                                                                                          180
                                                                                                                                                                                646
                                                                                                                                                                                                                  100
                                                                                        886
                                                                                                   200
                                                                                                              826
                                                                                                                                     766
                                                                                                                                                160
                                                                                                                                                           706
                                                                                                                                                                      140
                                                                                                                                                                                            120
                                                                                                                                                                                                       586
                                                                                                                                                                                                                            526
                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                   466
                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                         406
                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                               346
                                                                                                                                                                                                                                                                                                           20
                                                                             220
                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
               S
S
                          밁
                                    Qy
                                                 밁
                                                         Qy
                                                                                 Q
                                                                                              맑
                                                                                                       Qy
                                                                                                                    밁
                                                                                                                            δÃ
                                                                                                                                        닭
                                                                                                                                                    Š
                                                                                                                                                                밁
                                                                                                                                                                         δÃ
                                                                                                                                                                                      밁
                                                                                                                                                                                                Š
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                  ΩV
                                                                                                                                                                                                                                                                                                                                     ; TYPE: PRT; ORGANISM: Mus musculus US-09-336-536-10
                                                                      占
                                                                                                                                                                                                                                                                                          DB:
                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                      Pred.
                                                                                                                                                                                                                                                                                                                           Alignment
                                                                                                                                                                                                                                                                                                                      No.:
                                                                                                                                                                                                                                                                                                                           Scores:
                                                 181
                                                                                                                                                                           467
                                      827
                                                            767
                                                                        161
                                                                                              141
                                                                                                                    121
                                                                                                                                          101
                                                                                                                                                     527
                                                                                                                                                                                                                       347
                                                                                  707
                                                                                                                                                                                                 407
                                                                                                                                                                81
                                                                                                                                                                                      61
                                                                                                                                                                                                            41
                                                                                                                   ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                          GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                         CATGCAGCCAGCGCTTGCCGGGCCGGCGATGGCCGCGACGGCCGCGACGGCGCCCGGG
                                                                                                                                                                                                                                 GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                           HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                              GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
```

526 80 466 60 406 40 346 20

```
US-09-944-944-41 (1-1377) x US-09-336-536-10 (1-243)
                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/336, CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 10
LENGTH: 243
                                                                                                                                                                                                                                                                              APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED
FILE REFERENCE: 7853-144
2.41e-83
1258.00
96.30%
93.83%
49.53%
                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                        Gaps:
                                                                                                                                                                                                                                                                                                AND
                                                                                                                                                                                                                                                                                                 USES THEREOF
                                                                        0
0
0
0
0
0
0
```

```
GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: Bossone, S.
TITLE OF INVENTION: SECRETED PROTEINS AND US:
FILE REFERENCE: 7853-144
CURRENT APPLICATION UNMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
                δ
                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
Query Match:
DB:
밁
                                   멍
                                               Q
                                                                     밁
                                                                                   õ
                                                                                                         밁
                                                                                                                     Š
                                                                                                                                                          Š
                                                                                                                                                                                          Š
                                                                                                                                                                                                               밁
                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                            Pred.
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
US-09-336-536-4
                                                                                                                                         망
                                                                                                                                                                             뫄
                                                                                                                                                                                                                                                                                                                     ₽
                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                       US-09-944-944-41 (1-1377) x US-09-336-536-4 (1-228)
                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens US-09-336-536-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              EQ ID NO 4
LENGTH: 228
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn
                                                                                                                                                                                                                                                                                                                                                                                                                     No . .
181
                                   161
                                                                      141
                                                                                                         121
                                                                                                                          632
                                                                                                                                            101
                                                                                                                                                                                              512
                                                    752
                                                                                                                                                                                                                                452
                                                                                                                                                                                                                                                                  392
                                                                                                                                                                                                                                                                                                    332
                                                                                                                                                                              81
                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                    21
                                                                                                                                                                                                                                                                                                                       _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , Application 6406884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCTTTGCT
TACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTC
                                                                                                                                                  GGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTG
                                                                                                                                                                                                                               CCTCGAGGGGACCCCGGGCCGCGAGGAGGAGGCCGGGGACCCGGGGCCCACCGGGCCTGCC
                                                                                                                                                                                                                                               GGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGCCGC
                                                                                                                                                                                                                                                                                                                     CATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATT
                                                                                                                                           ProProProSerAspAlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHis
                                                                                                                                                                            {\tt GlyGluCysSerValProProArgSerAlaPheSerAlaLysArgSerGluSerArgValue}
                                                                                                                                                                                                              ATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGTGGGTGACTACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ver.
                                                                                                                                                                                                                                                                                                                                                                                 3.33e-83
1256.00
100.00%
100.00%
49.45%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/09336536
                                                                                                                                                                                                                                                                                                                                                                        Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                   Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USES
                                                                                                                                                                                                                                                                                                                                                                        871
                                                   811
                                                                                                                         691
                                                                      160
                                                                                      751
                                                                                                        140
                                                                                                                                          120
                                                                                                                                                          631
                                                                                                                                                                             100
                                                                                                                                                                                            571
                                                                                                                                                                                                              80
                                                                                                                                                                                                                              511
                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                 451
                                                                                                                                                                                                                                                                                  40
                                                                                                                                                                                                                                                                                                    39
                                                                                                                                                                                                                                                                                                                     20
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
 õ
                                      Š
                                                          밁
                    밁
                                                                           Ş
                                                                                                 밁
                                                                                                                 δÃ
                                                                                                                                         밁
                                                                                                                                                          Š
                                                                                                                                                                              멍
                                                                                                                                                                                             δ
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
US-09-336-536-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QY
                                                                                                                                                                                                                                                                                                                                       US-09-944-944-41 (1-1377) x US-09-336-536-11 (1-228)
                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                       ; ORGANISM: MU
US-09-336-536-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 6406884
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 11
LENGTH: 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: Bossone, S.
TITLE OF INVENTION: SECRETED
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11, 65
No. 6406884
                                                                                                  101
                                        692
                                                           121
                                                                               632
 752
                                                                                                                     572
                                                                                                                                                                                                                                                                                               452
                                                                                                                                                                                                                                        392
                                                                                                                                                                                                                                                                              332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 872
                                                                                                                                         81
                                                                                                                                                                               61
                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus
                  CCTCGAGGGGACCCCGGGCCGCGAGGAGAGGCGGGGCCGCGGGGGCCCACCGGGCCTGCC
                                                                                                                                                                                                                     AspGlyAlaProGlyAlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |||||||
TyrAspProThrThrGlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaVal
                                                                             TACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTC
                                                                                                 CCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGAACGAGCAGGGACAT
                                                                                                                                                            GGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTG
                                                                                                                                                                                                                                        GACGGCGCGCGCGGGGCTCCCGGGAGAGAAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGA
                                                                                                                                                                                                                                                                                GGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCCGACGGCCGC
                                                                                                                                                                               ProArgGlyGluProGlyProArgGlyGluAlaGlyProMetGlyAlaIleGlyProAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application
                                                                                                                                                                                                                                                                                                                                                                   3.64e-79
1200.00
96.93%
94.74%
47.24%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/09336536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        228
                                                                                                                                                                                                                                                                                                                                                           228
216
7
0
                                                          140
                                                                               691
                                                                                                                                                                                                                                       45
                                                                                                                                                                                                                                                         40
                    160
                                       75
                                                                                                  120
                                                                                                                     631
                                                                                                                                         100
                                                                                                                                                            571
                                                                                                                                                                               80
                                                                                                                                                                                                 51
                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                 20
```

В QΥ 밁 Qy 뫄 Q 밁

```
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity: Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                  US-09-944-944-41 (1-1377) x US-09-336-536-7 (1-128)
                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-336-536-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-336-536-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 640688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 128
TYPE: PRT
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS
FILE REFERENCE: 7853-144
                                             899
                                                                                                                                                                                     719
                                                                                                                                                                                                                                 659
                                                                                                                                                                                                                                                                               599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       872
                        121
                                                                    101
                                                                                                                                       779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                            41
                                                                                                                 81
                                                                                                                                                              61
                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                      _
                                                                                                                                                           TGCCAGGTGCCTGGGGTCTACTACCTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTG
                                                                                                                                                                                                                                                     TGGCACAGCTCCCCAGTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAA
                                                                                                                                                                                                                                                                                                                           GCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaSerPhePheGlnTyrPheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAla
                      SerThrPheSerGlyPheLeuVal 128
                                             AGCACCTTCTCCGGATTTCTGGTG 922
                                                                                                                TrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGluProGluAspGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTGGGGTGTGGGTGACTACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                   2.42e-41
675.00
100.00%
100.00%
26.57%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/09336536
                                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  THEREOF
                                                                                                                                                                                                                                                                                                                                                                         898
                                                                                                                                       838
                                                                                                                                                              80
                                                                                                                                                                                  778
                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                                             658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    871
                                                                                                               100
                                                                                                                                                                                                                                718
                                                                                                                                                                                                                                                                                                                           598
                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                            RESULT 9
US-08-463-911-2
                                                                                                                                                                                              밁
                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-944-944-41 (1-1377) x US-09-336-536-14 (1-128)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-336-536-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-336-536-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: MCKAY, C.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS
FILE REFERENCE: 7853-144
                                                                                                                     Sequence 2, Application Patent No. 5869330 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Ver. SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 14,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENGTH:
                                          NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hamilton,
                                                                             APPLICANT: Lodish, Harvey F.
TITLE OF INVENTION: A NOVEL SERUM PROTEIN PRODUCED
TITLE OF INVENTION: EXCLUSIVELY IN ADIPOCYTES
                                                                                                   APPLICANT: Scherer, APPLICANT: Lodish,
COUNTRY:
          STATE:
                      CITY:
                                STREET:
                                                                                                                                                                                                                     899
                                                                                                                                                                                                                                                                                                                                                                                                            659
                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    539
                                                                                                                                                                                              121
                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                               779
                                                                                                                                                                                                                                                                                                                                                              719
                                                                                                                                                                                                                                                                                                                                                                                   41
                                                                                                                                       2, Application US/08463911
). 5869330
                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6406884
                                                                                                                                                                                                                                                                                                                                    GCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGGTGCCTCCGCCGTCTGACGCACCCTTGCCC
                    Lexington
                                                                                                                                                                                                                     AGCACCTTCTCCGGATTTCTGGTG
                                                                                                                                                                                                                                                                                      AlaPheSerAlaLysArgSerGluSerArgValProProProAlaAspThrProLeuPro
                                                                                                                                                                                             SerThrPheSerGlyPheLeuVal
                                                                                                                                                                                                                                           ValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSerIleLysThrAsp
                                                                                                                                                                                                                                                                  TGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTG
          Massachusetts
                                                                                                                                                                                                                                                                                                               TGGCCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application
                                Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.54e-39
650.00
97.66%
94.53%
25.59%
                                                                                                             Philipp E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               us/09336536
                                           Brook,
                                            Smith & Reynolds,
                                                                                                                                                                                               128
                                                                                                                                                                                                                     922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o ο ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             128
121
```

898

120

838 100

80 778 60

718 40 658

20 598

δÃ 뫄 Ωy 밁 QΥ 밁 δδ В δÃ В ρ 밁 QY

밁

234

```
Š
                                                                              Š
                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                   ρ
                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                밁
                                                                                                                ₽
                                                                                                                                                                                     밁
                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-944-944-41 (1-1377) x US-08-463-911-2 (1-247)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-463-911-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (617) 861-6240
TELEFAX: (617) 861-9540
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 247 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: WH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
COMPUTER: PC-DOS/MS-DOS
COMPUTER: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                722
                                                                                                                   136
                                                                                                                                                                                       118
                                                                                                                                                                                                                       542
                                                                                                                                                                                                                                                                                          482
                                                                                                                                                                                                                                                                                                                                                            449
                                                                                                                                                                                                                                                                                                                                                                                                                              389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 284
                                                                                                                                                                                                                                                        98
                                                                                                                                                                                                                                                                                                                                                                                                                                                              44
                                                                                                                                                                                                                                                                                                                          78
                                                                                                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
AsnIleProGlyLeuTyrTyrPheSerTyrHisIleThrValTyrMetLysAspValLys
                                                                                CAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAG
                                                                                                                ThrLysIlePheTyrAsnGlnGlnAsnHisTyrAspGlySerThrGlyLysPheTyrCys
                                                                                                                                                 GACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGC
                                                                                                                                                                                   PheSerVal----GlyLeuGluThrArgValThrValPro----AsnValProIleArgPhe
                                                                                                                                                                                                                   TTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTC
                                                                                                                                                                                                                                                     {\tt ProGlyThrProGlyArgLysGlyGluProGlyGluAlaAlaTyrMetTyrArgSerAla}
                                                                                                                                                                                                                                                                                       GCGGGACCCGCGGGCCCACCGGGCCTGCCGGGGAGTGCTCCGGTGCCTCCGCGATCCGCC 541
                                                                                                                                                                                                                                                                                                                       {\tt GlyProLysGlyGluThrGlyAspValGlyMetThrGlyAlaGluGlyProArgGlyPhe}
                                                                                                                                                                                                                                                                                                                                                          GGACCTCGAGGGGAC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaGlyIleProGlyHisProGlyHisAsnGlyThrProGlyArgAspGlyArgAsp---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGGCCGCGATGGCCGCGACGGC 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrGluGluLeuAlaProAlaLeuValProProProLysGlyThrCysAlaGlyTrpMet 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGC-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuGlnAlaLeuLeuPheLeuLeuIleLeuProSerHisAlaGluAspAspValThrThr 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCGACGCCGCGCGGGGCTCCGGGAGAGAAAGGCGAGGCCGGGAGGCCGGGACTGCCG 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.22e-24
433.50
53.39%
40.64%
17.07%
                                                                                                                                                                                                                                                                                                                                                                                            ----GlyThrProGlyGluLysGlyGluLysGlyAspAlaGlyLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/08/463,911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WHI95-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 30
                                                                                                                                                                                                                                                                                                                                                          -----CCCGGGCCGCGAGGAGAG 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   247
102
32
92
92
8
                                                                                                                155
                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                     117
                                                                                                                                                                                                                                                                                                                                                                                            77
                                                175
                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                          97
                                                                                                                                                                                                                                                                                                                                                                                                                                                            62
              밁
                                          Ω
                                                                                                            Q
                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                 Š
                                                                              밁
                                                                                                                                                 밁
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                       뫄
                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo US-09-140-804-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-944-944-41 (1-1377) x US-09-140-804-8 (1-247)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
US-09-140-804-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 8
LENGTH: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 8, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: 97-49
CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
              118
                                                                                                                 500
                                                                                                                                                                                   449
                                                                                                                                                                                                                                                       389
                                              542 TTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTC
                                                                                                                                                                                                                                                                                                                       329 CCAGGCACGCCGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGC
                                                                                                                                                                                                                                                                                                                                                                                            284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 176 ValSerLeuPheLysLysAspLysAlaValLeuPheThrTyrAspGlnTyrGlnGlu---
                                                                                98
                                                                                                                                                 78
                                                                                                                                                                                                                     63
                                                                                                                                                                                                                                                                                       44
                                                                                                                                                                                                                                                                                                                                                          24
                                                                                                                                                                                                                                                                                                                                                                                                                          4 LeuGlnAlaLeuLeuPheLeuLeuIleLeuProSerHisAlaGluAspAspValThrThr 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   247
              PheSerVal---GlyLeuGluThrArgValThrValPro---AsnValProIleArgPhe
                                                                                                                                                                                 GGACCTCGAGGGGACCCCGGGGCCGAGGAGGAGGCGGGACCCGCGGGGCCC------
                                                                                                                                                                                                                                                                                       AlaGlyIleProGlyHisProGlyHisAsnGlyThrProGlyArgAspGlyArgAsp---
                                                                                                                                                                                                                                                                                                                                                          ThrGluGluLeuAlaProAlaLeuValProProProLysGlyThrCysAlaGlyTrpMet
                                                                                                                                                                                                                                                                                                                                                                                          GACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAGGCCACTCCTCGTCCTGCTCCTG----GCCCTGGCGGCCGGCTCGCCCCCACTG 283
                                                                                                                                                 GlyProLysGlyGluThrGlyAspValGlyMetThrGlyAlaGluGlyProArgGlyPhe
                                                                                                                                                                                                                                                     CGCGACGGCGCCCCGGGGGCTCCGGGAGAGAAAAGGCGAGGGCGGGAGGCCGGGACTGCCG
                                                                            {\tt ProGlnThrProGlyArgLysGlyGluProGlyGluAlaAlaTyrMetTyrArgSerAla}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerThrPheThrGlyPheLeuLeuTyrHisAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCACCTTCTCCGGATTTCTGGTGTACTCCGAC 931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              {\tt TrpLeuGlnValTyrGlyAspGlyAspHisAsnGlyLeuTyrAlaAspAsnValAsnAsp}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysAsnValAspGlnAlaSerGlySerValLeuLeuHisLeuGluValGlyAspGlnVal 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTG 841
                                                                                                                                                                   =
:::
=
:::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.66e-23
428.50
52.99%
40.24%
16.87%
                                                                                                                                                                                                                   ----GlyThrProGlyGluLysGlyGluLysGlyAspAlaGlyLeuLeu
                                                                                                                -ACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            247
101
32
93
25
8
```

----CTT 328

43

62 388

601 117 541 97 499 77 448

135

Ú

```
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HO!
FILE REFERENCE: 97-30
CURRENT APPLICATION NUMBER: US/09/118,408A
CURRENT FILING DATE: 1998-07-17
EARLIER APPLICATION NUMBER: 60/053,154
EARLIER FILING DATE: 1997-07-18
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
       B 5
                                                                                 밁
                                                                                                                            Qy
                                                                                                                                                                                     뫄
                                                                                                                                                                                                                         γQ
                                                                                                                                                                                                                                                                                Вþ
                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-944-944-41 (1-1377) x US-09-118-408-3 (1-247)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: PRT
; ORGANISM: Homo
US-09-118-408-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
US-09-118-408-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 3, Application US/09118408A Patent No. 6265544
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match:
                                                  449
                                                                                                                                             389
                                                                                                                                                                                                                                                                                                                              284
                                                                                                                                                                                                                                                                                                                                                                                                                         227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     662
                                                                                                                                                                                                                                   329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          722
                                                                                                                                                                                          44
                                                                                                                                                                                                                                                                                   24
       78
                                                                                               63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247
                                                                                                                                                                                                                                                                              ThrGluGluLeuAlaProAlaLeuValProProProLysGlyThrCysAlaGlyTrpMet 43
                                                                                                                                                                                                                                                                                                                              GACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGC----
                                                                                                                                                                                                                                                                                                                                                                         LeuGlnAlaLeuLeuPheLeuLeuIleLeuProSerHisAlaGluAspAspValThrThr
                                                                                                                                                                                                                                                                                                                                                                                                                  ATGAGGCCACTCCTCGTCCTGCTCCTG----GGCCTGGCGGCCGGCTCGCCCCCACTG
                                                                                                                                                                                                                  CCAGGCACGCCGGGCCACCCATGGCAGCCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGC 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCACCTTCTCCGGATTTCTGGTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TrpLeuGlnValTyrGlyAspGlyAspHisAsnGlyLeuTyrAlaAspAsnValAsnAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCCATGGTGAGGCTGGAGGCCTGAGGACCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAG
    GlyProLysGlyGluThrGlyAspValGlyMetThrGlyAlaGluGlyProArgGlyPhe
                                               GGACCTCGAGGGGACCCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCC-----
                                                                                                                                                                                     AlaGlyIleProGlyHisProGlyHisAsnGlyThrProGlyArgAspGlyArgAsp---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lys \texttt{AsnValAspGlnAlaSerGlySerValLeuLeuHisLeuGluValGlyAspGlnValLeuLeuHisLeuGluValGlyAspGlnValLeuLeuHisLeuGluValGlyAspGlnValLeuLeuHisLeuGluValGlyAspGlnValLeuLeuHisLeuGluValGlyAspGlnValLeuLeuHisLeuGluValGlyAspGlnValLeuLeuHisLeuGluValGlyAspGlnValLeuHisLeuGluValGlyAspGlnValLeuHisLeuGluValGlyAspGlnValLeuHisLeuHisLeuGluValGlyAspGlnValLeuHisLeuHisLeuGluValGlyAspGlnValLeuHisLeuHisLeuGluValGlyAspGlnValLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuHisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuhisLeuh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AsnIleProGlyLeuTyrTyrPheSerTyrHisIleThrValTyrMetLysAspValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrLysIlePheTyrAsnGlnGlnAsnHisTyrAspGlySerThrGlyLysPheTyrCys
                                                                                                                                          CGCGACGGCGCCCGGGGGCTCCGGGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValSerLeuPheLysLysAspLysAlaValLeuPheThrTyrAspGlnTyrGlnGlu---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.66e-23
428.50
52.99%
40.24%
16.87%
                                                                                          -GlyThrProGlyGluLysGlyGluLysGlyAspAlaGlyLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOMOLOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             247
101
32
93
25
    97
                                                                                          77
                                                                                                                                                                                        62
                                                                                                                                          448
                                                                                                                                                                                                                                                                                                                              328
                                                                                                                                                                                                                                                                                                                                                                                                                    283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194
                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
Ş
                                             멇
                                                                                      Ş
                                                                                                                                        밁
                                                                                                                                                                                 Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
US-09-506-855-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρ
                                                                                                                                                                                                                                 US-09-944-944-41 (1-1377) x US-09-506-855-3 (1-247)
                                                                                                                                                                                                                                                                                                                                                                         Score:
                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-506-855-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: FastSEQ for Windows Version SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application Patent No. 6448221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 24
TYPE: PRT
ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/506, CURRENT FILING DATE: 2000-02-17 NUMBER OF SEQ ID NOS: 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: INHIBITORS FOR ITITLE OF INVENTION: IMMUNE FUNCTION FILE REFERENCE: 99-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Sheppard, Paul
APPLICANT: Lasser, Gerald
APPLICANT: Bishop, Paul D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      500
  329
                                                                                                                                                              227 ATGAGGCCACTCCTCGTCCTGCTCCTG----GGCCTGGCCGGCCGGCTCGCCCCACTG
:::::: ||||||| ||||||:::||| ||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195
                                                                                          284 GACGACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98
                                               24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACCGCGTGCTGGAACGAGCAGGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGC
::::::
  CCAGGCACGCCGGGCCACCATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGC 388
                                                                                                                                      LeuGlnAlaLeuLeuPheLeuLeuIleLeuProSerHisAlaGluAspAspValThrThr 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCACCTTCTCCGGATTTCTGGTGTACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TrpLeuGlnValTyrGlyAspGlyAspHisAsnGlyLeuTyrAlaAspAsnValAsnAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysAsnValAspGlnAlaSerGlySerValLeuLeuHisLeuGluValGlyAspGlnVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTACCGGGCCAGCCTGCAG
                                             ThrGluGluLeuAlaProAlaLeuValProProProLysGlyThrCysAlaGlyTrpMet 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCAAGCCAGCCTCGCTCTCGGGGGGGGGCCATGGTGAGGCTTGGAGCCTGAGGACCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ValSerLeuPheLysLysAspLysAlaValLeuPheThrTyrAspGlnTyrGlnGlu---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrLysIlePheTyrAsnGlnGlnAsnHisTyrAspGlySerThrGlyLysPheTyrCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProGlnThrProGlyArgLysGlyGluProGlyGluAlaAlaTyrMetTyrArgSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PheSerVal---GlyLeuGluThrArgValThrValPro---AsnValProIleArgPhe
                                                                                                                                                                                                                                                                                               1.66e-23
428.50
52.99%
40.24%
16.87%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/09506855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----ACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₹0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FOR USE IN HEMOSTASIS
                                                                                                                                                                                                                                                                                                 Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                 Conservative:
                                                                                                                                                                                                                                                                                                                                                                         Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       245
                                                                                                                                                                                                                                                                              247
101
32
93
25
                                                                                          -CTT 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
```

밁 δõ 5 B

δ

δÃ В Qy 밁 Qy

```
RESULT 13
US-08-463-911-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . 문
                                                                                                                                                                                                                                                                                                                                                                                 Sequence 7, Application US/08463911 Patent No. 5869330
                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                         APPLICANT: Scherer, Philipp E.
APPLICANT: Lodish, Harvey F.
TITLE OF INVENTION: A NOVEL SERUM PROTEIN PRODUCED
TITLE OF INVENTION: EXCLUSIVELY IN ADIPOCYTES
NUMBER OF SEQUENCES: 7
                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                  STREET: Lexington
                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                   APPLICATION NUMBER: FILING DATE: CLASSIFICATION: 530
                                                                                                                                                                                                        COUNTRY:
          NAME: Granahan, Patricia REGISTRATION NUMBER: 32,227
 REFERENCE/DOCKET
                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACCGCGTGCTGGAACGAGCAGGGACATTACGACGCCGTCACCGGCAAGTTCACCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            {\tt TrpLeuGlnValTyrGlyAspGlyAspHisAsnGlyLeuTyrAlaAspAsnValAsnAsp}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysAsnValAspGlnAlaSerGlySerValLeuLeuHisLeuGluValGlyAspGlnVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AsnIleProGlyLeuTyrTyrPheSerTyrHisIleThrValTyrMetLysAspValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrLysIlePheTyrAsnGlnGlnAsnHisTyrAspGlySerThrGlyLysPheTyrCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCAAGCCAGCCTCGCTCTCGGGGGGGGCCATGGTGAGGCTGGAGCCTGAGGACCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValSerLeuPheLysLysAspLysAlaValLeuPheThrTyrAspGlnTyrGlnGlu---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PheSerVal----GlyLeuGluThrArgValThrValPro---AsnValProIleArgPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGACGCACCCTTGCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProGlnThrProGlyArgLysGlyGluProGlyGluAlaAlaTyrMetTyrArgSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyProLysGlyGluThrGlyAspValGlyMetThrGlyAlaGluGlyProArgGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACCTCGAGGGGACCCCGGGGCCGCGAGGAGAGGCGGGACCCGCGGGGGCCC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCGACGGCGCGCGCGGGGCTCCGGGAGAGAAAGGCCGAGGGCGGGAGGCCGGGACTGCCG
                                                                                                                                                                                                                     Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Two Militia Drive
                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                Hamilton,
                                                                                                                                                         Floppy disk
                                                         530
 NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----GlyThrProGlyGluLysGlyGluLysGlyAspAlaGlyLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----ACCGGGCCTGCCGGGGAGTGCTCGGTGCCTCCGCGATCCGCC
                                                                                    US/08/463,911
                                                                                                                                                                                                                                                              Brook,
WHI95-05
                                                                                                                                                                                                                                                                Smith &
                                                                                                                 Version
                                                                                                                                                                                                                                                                Reynolds, P.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                       245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    931
                                                                                                                 #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
            밁
                                    Š
                                                                                            δÃ
                                                                                                                                                       Ş
                                                                  В
                                                                                                                            밁
                                                                                                                                                                                     밁
                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                         δã
                                                                                                                                                                                                                                                                                                         吊
                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-41 (1-1377) x US-08-463-911-7 (1-244)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; MOLECULE TYPE: protein US-08-463-911-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (617) 861-9540 INFORMATION FOR SEQ ID NO: 7: SEQUENCE CHARACTERISTICS: 244 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                       163
                                                                                                 809
                                                                                                                             183
                                                                                                                                                          749
                                                                                                                                                                                                                    692
                                                                                                                                                                                                                                                 143
                                                                                                                                                                                                                                                                             632
                                                                                                                                                                                                                                                                                                         124
                                                                                                                                                                                                                                                                                                                                     572
                                                                                                                                                                                                                                                                                                                                                                  105
                                                                                                                                                                                                                                                                                                                                                                                                                                                       464
                                                                    201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              242 GTCCTGCTGCTCCTGGGCCTGGCCGGCTCGCCCCACTGGACGACAACAAGATCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                          85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
       GCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTG----GGTGTGGGTGAC
                                                                                                                                                                                                                                                              TACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTACCTTCGCCGTC
                                                                                                                                                         CATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCC---
                                                                                                                                                                                                                                               TyrAspGlySerThrGlyLysPheHisCysAsnIleProGlyLeuTyrTyrPheAlaTyr 162
                                                                  ValLeuLeuHisLeuGluValGlyAspGlnValTrpLeuGlnValTyrGlyGluGlyGlu
                                                                                                                            LeuPheThrTyrAspGlnTyrGlnGluAsnAsnValAspGlnAla-----SerGlySer
                                                                                                                                                                                     HisIleThrValTyrMetLysAspValLysValSerLeuPheLysLysAspLysAlaMet
                                                                                                                                                                                                                                                                                                         ThrIlePro---AsnMetProIleArgPheThrLysIlePheTyrAsnGlnGlnAsnHis
                                                                                                                                                                                                                                                                                                                                                                 GlyGluGlyAlaTyrValTyrArgSerAlaPheSerVal---GlyLeuGluThrTyrVal 123
                                                                                                                                                                                                                                                                                                                                                                                GGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                         ValProGlyAlaGluGlyProArgGlyPheProGlyIleGlnGlyArgLySGlyGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyAlaProGlyArgAspGlyArgAsp-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuProLysGlyAlaCysThrGlyTrpMetAlaGlyIleProGlyHisProGlyHisAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCTCTGCCCGGGGCAC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ValLeuLeuLeuAlaLeu------
                                                                                                                                                                                                                                                                                                                                  CCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACAT 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGCGCGCCCGGGGCTCCGGGAGAG 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LysGlyGluLysGlyAspProGlyLeuIleGlyProLysGlyAspIleGlyGluThrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----ProGlyHisAspGlnGluThrThrThrGlnGlyProGlyValLeuLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                      -------CCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617) 861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3.49e-23
424.00
50.38%
40.46%
16.69%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -CTTCCAGGCACGCCGGGCCACCATGGCAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        --------GlyThrProGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      106
26
72
10
                                                                                               865
                                                                                                                                                                                                                                                                                                                                                                                                                         104
                                                                                                                                                                                                                                                                                                                                                                                                                                                      511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50
          240
                                       925
                                                                  220
                                                                                                                             200
                                                                                                                                                                                       182
                                                                                                                                                                                                                  748
                                                                                                                                                                                                                                                                            691
                                                                                                                                                                                                                                                                                                         142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13
```

밁 ð g QΥ Ş В Ş В Ωy 밁 νQ 밁 δ 밁 Š ф δ 멍 δÕ 밁

925 220 865 200 808

```
Best Local Si
Query Match:
DB:
               Š
                                             밁
                                                                  ρy
                                                                                                  Вb
                                                                                                                            QΥ
                                                                                                                                                          밁
                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                            80
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: HOMO US-09-140-804-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
US-09-140-804-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-944-944-41 (1-1377) x US-09-140-804-3 (1-244)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence 3, Application US/09140804 Patent No. 6197930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 24
TYPE: PRT
ORGANISM:
                                                                                                                                572
                                                                                                                                                            105
                                                                                                                                                                                         512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            926
                  692
                                                                                                    124
                                                                                                                                                                                                                                                  464
                                                                                                                                                                                                                                                                                                          419
                                                                                                                                                                                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                                                                                                                                                                                              326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      302 AGCCTCTGCCCGGGGCAC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity:
                                                                                                                                                                                                                    85
                                                                                                                                                                                                                                                                             65
                                                                                                                                                                                                                                                                                                                                    .
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                         14
                                                                                                                                                                                                                                                                                                                                                                                               31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                              ValProGlyAlaGluGlyProArgGlyPheProGlyIleGlnGlyArgLySGlyGluPro 104
                                                                                                                                                                                                                                                                                                                                    GTCCTGCTGCTGCTGGCCTGGCCGGCCTCGCCCCACTGGACGACAACAAGATCCCC
               CATGCCACCGTCTACCGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCC---
                                                                                                                                                          GlyGluGlyAlaTyrValTyrArgSerAlaPheSerVal---GlyLeuGluThrTyrVal 123
                                                                                                                                                                                                                                                                         HisAsp 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCGAC
                                          TyrAspGlySerThrGlyLysPheHisCysAsnIleProGlyLeuTyrTyrPheAlaTyr
                                                                     TACGACGCCGTCACCGGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTACTTCGCCGTC
                                                                                                  ThrIlePro---AsnMetProIleArgPheThrLysIlePheTyrAsnGlnGlnAsnHis
                                                                                                                             CCTCCGCCGTCTGACGCACCCTTGCCCCTTCGACCGCGTGCTGAACGAGCAGGGACAT
                                                                                                                                                                                     GGGGAGTGCTCGGGTGCCTCCGCGATCCGCCTTCAGCGCCCAAGCGCTCCGAGAGCCGGGTG
                                                                                                                                                                                                                                                                                                         AAAGGCGAGGGCGGGACCGGGACCTCGAGGGGAC------
                                                                                                                                                                                                                                                                                                                                                               {\tt LeuProLysGlyAlaCysThrGlyTrpMetAlaGlyIleProGlyHisProGlyHisAsn}
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------ProGlyHisAspGlnGluThrThrThrGlnGlyProGlyValLeuLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValLeuLeuLeuAlaLeu-------
                                                                                                                                                                                                                                                 -------CCCGGGCCGCGAGGAGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3.49e-23
424.00
50.38%
40.46%
16.69%
                                                                                                                                                                                                                                                                                                                                                                                                                          -----CTTCCAGGCACGCCGGGCCACCATGGCAGCCAG
Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   244
106
26
72
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      --cccgc---
                                                                                                                             631
                                                                                                                                                                                                                                                                                                                                      64
                                                                       691
                                                                                                  142
                                                                                                                                                                                                                                                 511
                                                                                                                                                                                                                                                                          84
                                                                                                                                                                                                                                                                                                                                                                                              50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                     571
                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
Query Match:
                                                     Ş
                                                                                    뮹
                                                                                                                Ş
                                                                                                                                           멍
                                                                                                                                                                     δÃ
                                                                                                                                                                                                     뮹
                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                             US-09-944-944-41 (1-1377) x US-09-336-536-20 (1-244)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-336-536-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-336-536-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Ver.
SEQ ID NO 20
LENGTH: 244
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No. 6406884 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: BOSSONE, S. TITLE OF INVENTION: SECRETED PROTEINS FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Leiby, K. APPLICANT: McKay, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scores:
                                                         464
                                                                                                                                                                         359
                                                                                                                                                                                                                                   326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           163
                                                                                                                                                                                                                                                                                                                                                242 GTCCTGCTGCTCGGGCCTGGCGGCCGGCCCCCCACTGGACGACAACAAGATCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 Hisasp 242
                                                                                                                                             51
                                                                                                                                                                                                     31
                                                                                                                                                                                                                                                             14
                                                                                                  GGGGAGTGCTCGGTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTG 571
                                                                                                                                                                                                                                                                                                                      ValLeuLeuLeuAlaLeu------
                                                                                                                                          GlyAlaProGlyArgAspGlyArgAsp----
                                                                                                                                                                        GGCTTGCCGGGCCGCGATGGCCGCGACGGCGACGGCGCCCCGGGGGCTCCGGGAGAG 418
                                                                                                                                                                                                  LeuProLysGlyAlaCysThrGlyTrpMetAlaGlyIleProGlyHisProGlyHisAsn 50
                                                                                                                                                                                                                                                                                          AGCCTCTGCCCGGGGCAC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCGAC 931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HisIleThrValTyrMetLysAspValLysValSerLeuPheLysLysAspLysAlaMet 182
                           ValProGlyAlaGluGlyProArgGlyPheProGlyIleGlnGlyArgLySGlyGluPro 104
                                                                                   LysGlyGluLysGlyAspProGlyLeuIleGlyProLysGlyAspIleGlyGluThrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCATGGTGAGGCTGGAGCCTGAGGACCAAGTGTGGGTGCAGGTG----GGTGTGGGTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuPheThrTyrAspGlnTyrGlnGluAsnAsnValAspGlnAla-----SerGlySer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------CCCGGGCCGCGAGGAGAGGCGGGACCCGGGGGCCCACCGGGCCTGCC 511
                                                                                                                                                                                                                                                             -----ProGlyHisAspGlnGluThrThrThrGlnGlyProGlyValLeuLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/09336536
                                                                                                                                                                                                                                                                                                                                                                                                                      3.49e-23
424.00
50.38%
40.46%
16.69%
                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AND
                                                                                                                                                                                                                                CTTCCAGGCACGCCGGGCCACCATGGCAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USES THEREOF
```

244 106 26 72 72 58

----GlyThrProGlyGlu

64

358 30 13

325

463

```
δÃ
                                        В
                                                       δÃ
                                                                              멼
                                                                                               Ş
                                                                                                                 밁
                                                                                                                                     δ
                                                                                                                                                            밁
                                                                                                                                                                         Ω
                                                                                                                                                                                             닭
                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                         Ω
926 TCCGAC 931
|||
241 HisAsp 242
                                    866 TACATTGGCATCTATGCCAGCATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTAC 925
|||::::||||||
221 ArgAsnGlyLeuTyrAlaAspAsnAspAsnAspSerThrPheThrGlyPheLeuLeuTyr 240
                                                                           572 CCTCCGCCGTCTGACGCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACAT 631
||| ::: ||| ::::: ||| |||
124 ThrIlePro---AsnMetProIleArgPheThrLysIlePheTyrAsnGlnGlnAsnHis 142
                                                                                                                   183 LeuPheThrTyrAspGlnTyrGlnGluAsnAsnValAspGlnAla-----SerGlySer 200
```

Search completed: June 21, 2003, 16:09:18 Job time: 55.5 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OM nucleic - protein search, using frame_plus_n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -O-/cgn2_1/USPTO_Spool/US0994494/runat_13062003_145850_22929/app_query.fasta_1.1543
-OB-Published_Applications_AA -QFWI-fastan -SUFFIX-rapb -MINNATCH-0.1
-LOOPCI--O -LOOPEXI-O -UNITS-blts -START-1 -END-1 - NATRIX-blosum62
-TRANS-human40.cdi -LIST-45 -DOCALIGN-200 -THR_SCORE-pct -THR_MAX-100
-THR_MIN-O -ALIGN-15 -MODE-LOCAL -OUTFWI-pto -NORW-ext -HEAPSIZE-500 -MINLEN-0
-MAXLEN-2000000000 -USER-US09944944_@CGN_1 -1_41_grunat_13062003_145850_22929
-NAXLEN-2000000000 -USER-US09944944_@CGN_1 -1_41_grunat_13062003_145850_22929
-NAXLEN-20000000000 -USER-US09944944_@CGN_1 -1_41_grunat_13062003_145850_22929
-NAXLEN-200000000000 -USER-US09944944_@CGN_1 -1_41_grunat_13062003_145850_22929
-NAXLEN-2000000000000 -USER-US09944944_@CGN_1 -1_41_grunat_13062003_145850_22929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Command line parameters:
                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=16 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6
                                                                                                                                                                                                                                                 is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _n2p.model -DEV=xlh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xgapop 10.0 , 1
Ygapop 10.0 , 1
Fgapop 6.0 , 1
Delop 6.0 , 1
                                                                                                                         Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        417779 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    June 21, 2003, 16:06:16; Search time 147 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Published_Applications_AA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-944-944-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 gactagttctcttggagtct....
     52.2
52.2
52.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                            /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US00_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cgn2_6/ptodata/2/pubpaa/PCTUS_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /cgn2_6/ptodata/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
                                                                                                                            Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108206813 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ygapext
Fgapext
Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xgapext
  US-09-944-413-42
US-09-944-403-42
US-09-944-896-42
US-09-944-944-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ....aaaaaaaaaaaaaaaaaa 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (without alignments)
2027.222 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -DELOP-6 -DELEXT-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -XGAPOP-10 -XGAPEXT-0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            835558
                                                                                                                       Description
  Sequence 42,
Sequence 42,
Sequence 42,
Sequence 42,
Appl
Appl
Appl
Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 1
US-09-944-413-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 42, Application US/09944413 Patent No. US20020156004A1
                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Baker,
                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                       Roy, Margaret
Tumas, Daniel
Wood, William
                                                                                                                                                                                                                                              Napier, Mary
                                                                                                                                                                                                                                                                                                                     Gurney, Austin
                                                                                                                                                                                                                                                                                                                                               Godowski,Paul
Grimaldi,Christopher
                                                                                                                                                                                                                                                                                                                                                                                               Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                      Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Filvaroff,Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eaton, Dan
                                                                                                                                                                                                                                                                          Kljavin,Ivar
                                                                                                                                                                                                                                                                                              Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kevin
```

		3			0			37	36	5	4	ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17			14		2		10	9	œ	7	0	u
32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	1325	32	32	32	32	32	32	32	32	32	32	32	1325	N
2	2	Ň	Ñ	Ņ	N	2	2	۶	Ñ	Ņ.	Ñ	<u>ب</u>		Ñ	į.	Ñ	Ñ	Ñ	Ñ	Ñ	<u>ک</u>	Ň	2		Ñ	2	52.2	Ñ	Ñ		2	N.	Ñ		∾	2		٥.		
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	243	4	4	4	4	4	4	4	4	4	4	4	4	4
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	o	9	9	9	9	9	9	9	9	9	9	ø	9	9	9	9	φ	9
S-10-123-909-36	-10-123-908-36	-10-123-902-36	S-10-123-215-36	-10-121-047-36	S-10-121-043-3	S-10-121-041-36	S-09-944-884-4	S-10-160-498-36	S-10-140-925-36	S-10-124-822-36	S-10-124-819-36	S-10-123-903-36	S-10-123-292-36	S-10-121-045-36	S-10-140-928-36	S-10-140-921-36	S-10-123-261-36	S-10-123-236-36	S-10-123-108-36	S-10-143-032-36	S-10-141-755-36	S-10-121-050-36	S-10-142-423-36	S-10-123-262-36	S-10-142-419-36	S-10-140-002-36	US-10-143-114-362	S-10-142-431-36	-10-140-474-36	S-10-137-865-36	S-10-176-921-36	S-10-176-918-36	S-10-175-746-36	5-09-796-753-68	S-10-140-470-36	S-10-123-904-3	S-10-121-049-36	S-10-028-072-36	-09-944-929-4	S-09-944-907-4
equence 36	equence 362	equence 362,	equence 362,	equence 362	equence 362	equence 362	equence 42,	equence 362,	equence 362,	equence 362,	equence 362	equence 362	equence 362	equence 362,	equence 362	equence 362,	quence 362	equence 362,	equence 362,	equence 362,	equence 362	equence 362	equence 362	equence 68,	equence 362,	equence 362	equence 362,	equence 362,	quence 42,	equence 4										
App	App	App	App	App	App	App	Appl	App	App	App	App	App	App	App	Appl	App	App	App	App	Appl	Appl																			

ALIGNMENTS

```
CURRENT APPLICATION NUMBER: US/09/944,413
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
                                                                                                                      TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
```

```
PRIOR FILLING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/069.334
PRIOR INCLING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069.278
PRIOR FILLING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069.269
PRIOR FILLING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069.696
PRIOR FILLING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069.696
PRIOR FILLING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069.870
PRIOR PRILING DATE: December 16, 1997
PRIOR PRILING DATE: December 17, 1997
PRIOR PRILING DATE: December 18, 1997
PRIOR PRILING DATE: DECEMBER: 60/074, 40
PRIOR PRILING DATE: DECEMBER: 60/074, 40
PRIOR PRILING DATE: DECEMBER: 60/074, 40
PRIOR PRILING DATE: DECEMBER: 60/074, 40
PRIOR PRILING DATE: DECEMBER: 60/074, 99
PRIOR PRILING DATE: DECEMBER: 60/074, 99
PRIOR PRILING DATE: DECEMBER: 60/074, 99
PRIOR PRILING DATE: DECEMBER: 60/074, 99
PRIOR PRILING DATE: DECEMBER: 60/074, 99
PRIOR PRILING DATE: DECEMBER: PCT/US99/12552
PRIOR PRILING DATE: DECEMBER: PCT/US99/28101
PRIOR PRILING DATE: DECEMBER: PCT/US99/28101
PRIOR PRIOR PRILING DATE: DECEMBER: PCT/US99/28101
PRIOR PRILING DATE: DECEMBER: PCT/US99/28101
PRIOR PRILING DATE: DECEMBER: PCT/US99/28101
PRIOR PRILING DATE: DECEMBER: PCT/US90/0841
PRIOR PRIOR PRIOR PRIOR PRIOR
```

```
; LENGTH: 243
; TYPE: PRT
; ORGANISM: HOMO S
US-09-944-413-42
         Š
                    밁
                             Š
                                                 Ş
                                        밁
                                                          ᄝ
                                                                      Š
                                                                                 B
                                                                                          Qy
                                                                                                      밁
                                                                                                             δÃ
                                                                                                                          밁
                                                                                                                                  Ş
                                                                                                                                              밁
                                                                                                                                                      Ş
                                                                                                                                                                 밁
                                                                                                                                                                           Š
                                                                                                                                                                                               Ş
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                      US-09-944-944-41 (1-1377) x
                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                             PRIOR FILING DATE: February
NUMBER OF SEQ ID NOS: 120
SEQ ID NO 42
         947
                              887
                                                   827
241
                    221
                                                             181
                                         201
                                                                       767
                                                                                 161
                                                                                           707
                                                                                                      141
                                                                                                                647
                                                                                                                          121
                                                                                                                                    587
                                                                                                                                              101
                                                                                                                                                        527
                                                                                                                                                                            467
                                                                                                                                                                                                407
                                                                                                                                                                 18
                                                                                                                                                                                     61
                                                                                                                                                                                                         41
                                                                                                                                                                                                                              21
    GTCTTTGCT
                   GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
ValPheAla
                                                            GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                        GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                  Sapien
                                                                                                                                                                                                                                                                                      1.01e-57
1325.00
100.00%
100.00%
52.17%
         955
                                                                                                                                                                                                                                                                      US-09-944-413-42
                                                                                                                                                                                                                                                                                                                                                        28,
                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                      (1-243)
                                                                                                                                                                                                                                                                                 243
0 43
0 0
                              946
                                                  886
                                                                       826
                                                                                 180
                                                                                                                                                                 100
                    240
                                                            200
                                                                                           766
                                                                                                     160
                                                                                                                         140
                                                                                                                                   646
                                                                                                                                             120
                                                                                                                                                      586
                                                                                                                                                                            526
                                                                                                                                                                                     80
                                                                                                                                                                                               466
                                                                                                                                                                                                         60
                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                  20
```

RESULT 2 US-09-944-403-42 ; Sequence 42, Ap

Application US/09944403

```
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
CURRENT APPLICATION NUMBER: US/09/944,403
CURRENT FILING DATE: 2001-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/069, PRIOR FILING DATE: December 11, 1 PRIOR APPLICATION NUMBER: 60/069, PRIOR FILING DATE: December 11, 1 PRIOR APPLICATION NUMBER: 60/069,
                                                                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                   PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR FILING DATE: December 3, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                DR APPLICATION NUMBER: 60/075,945
DR FILING DATE: February 25, 1998
DR APPLICATION NUMBER: 60/112,850
DR FILING DATE: December 16, 1998
DR APPLICATION NUMBER: 60/113,296
DR FILING DATE: December 22, 1998
DR APPLICATION NUMBER: 60/146,222
DR FILING DATE: July 28, 1999
DR FILING DATE: July 28, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/069,870
FILING DATE: December 17, 1997
FILING DATE: December 17, 1997
APPLICATION NUMBER: 60/069,873
                                                                                                                                                                                                                                                                                                                                 FILING DATE: February APPLICATION NUMBER: 60 FILING DATE: February
                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: December 17, 1997
APPLICATION NUMBER: 60/068, 1997
FILING DATE: December 18, 1997
APPLICATION NUMBER: 60/070,440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/069335
FILING DATE: December 11, 199
APPLICATION NUMBER: 60/069,271
FILING DATE: December 11, 199
                                                                                                                               APPLICATION NUMBER: FILING DATE: Decembe
                                                                                                                                                                                  APPLICATION NUMBER: 6 FILING DATE: July 28, APPLICATION NUMBER: P
                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: January 5, 1998 APPLICATION NUMBER: 60/074,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: Decembe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60 FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: Decembe
                  APPLICATION NUMBER: 0 FILING DATE: March 3, APPLICATION NUMBER: P
                                                                                   FILING DATE: Decembe APPLICATION NUMBER:
                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                     FILING DATE: December
                                                                                                                   APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US20020165143A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Roy, Margaret
Tumas, Daniel
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gurney, Austin
Hillan, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Godowski, Paul
Grimaldi, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ferrara, Napoleone Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Napier, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Botstein, David
 N NUMBER: PC
                                                                    N NUMBER: 09/216,021
E: December 16, 1998
NN NUMBER: 09/218,517
E: December 22, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             December 11, 1997
NUMBER: 60/069,278
December 11, 1997
                                                                                                                                                                 September
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : 60/069,696

per 16, 1997

: 60/069,694

per 16, 1997
                                                                                                                                                                                                                                                                                                                                              60/074,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/069,425
     PCT/US99/12252
2, 1999
                                                   09/254,311
                                                                                                                                                PCT/US98/25108
                                                                                                                                                                                PCT/US98/19330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60/069,702
                                                                                                                                                                                                                                                                                                                                    9,
                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                   1998
                                                                                                                                                                                                                                                                                                                                                                   1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
                                                   밁
                                                                              δÃ
                                                                                                                닭
                                                                                                                                         δÃ
                                                                                                                                                                                밁
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                               뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-41 (1-1377) x US-09-944-403-42 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-403-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 42
LENGTH: 243
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: PCT/US01/06520 PRIOR FILING DATE: February 28, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OR APPLICATION NUMBER: PCT/US99/28409
OR APPLICATION NUMBER: PCT/US99/28409
OR APPLICATION NUMBER: PCT/US99/28409
OR FILING DATE: No. US20020165143Alember 30
IOR APPLICATION NUMBER: PCT/US99/28301
IOR APPLICATION NUMBER: PCT/US99/28301
IOR APPLICATION NUMBER: PCT/US99/28301
IOR APPLICATION NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OR FILING DATE: February 22, 2000
OR APPLICATION NUMBER: POT/US00/05841
OR FILING DATE: MAICH 2, 2000
OR APPLICATION NUMBER: PCT/US00/08439
OR FILING DATE: MAICH 30, 2000
OR APPLICATION NUMBER: PCT/US00/14042
OR FILING DATE: MAY 22, 2000
OR APPLICATION NUMBER: PCT/US00/20710
OR FILING DATE: July 28, 2000
OR FILING DATE: July 28, 2000
OR FILING DATE: July 28, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: December 16, 1999
APPLICATION NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US99/30095 FILING DATE: December 16, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US99/21090
                  647
                                                   121
                                                                                                                101
                                                                                                                                                527
                                                                                                                                                                                                                                                                                407
                                                                                                                                                                                                                                                                                                                                                347
                                                                                                                                                                                                                                                                                                                                                                                              287 GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                              467
                                                                                                                                                                                81
                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                              GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                               AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                 GGGCCGCGAGGAGGCGGGACCCGCGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              December 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0000243
```

706

466

90

406

20 346 40

141

Q 밁 δĀ 밁 ρy 밁 Š 멂 Ş

947 221

GICTITGCT 955

ValPheAla 243

201 827 181 767 161

US-09-944-896-42

42,

APPLICANT:

Botstein, David Kevin

```
CURRENT APPLICATION NUMBER: US/09/944,896
CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,335
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 11, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
                                                                                                                                                                                                                   APPLICATION NUMBER: 60/069,425
& FILING DATE: December 12, 1997
& FILING DATE: December 12, 1997
& APPLICATION NUMBER: 60/069,696
& APPLICATION NUMBER: 16, 1997
                                                                                                                                                                                      FILING DATE: December 16, 1997
APPLICATION NUMBER: 60/069,694
FILING DATE: December 16, 1997
                                                    APPLICATION NUMBER: 60/068,017 FILING DATE: December 18, 1997
                                                                                     APPLICATION NUMBER: 60/069, FILING DATE: December 17,
                                                                                                                       APPLICATION NUMBER: 60/069,870 FILING DATE: December 17, 1997
                                                                                                                                                        APPLICATION NUMBER: 60/069,702 FILING DATE: December 16, 1997
   APPLICATION NUMBER: 60/070,440 FILING DATE: January 5, 1998 APPLICATION NUMBER: 60/074,086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2, Application US/09944896
US20020168715A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Grimaldi,Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                δÃ
   밁
                             δÃ
                                                                    밁
                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                     US-09-944-944-41 (1-1377) x US-09-944-896-42 (1-243)
                                                                                                                                                                                      Query Match:
                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                        Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                       ; ORGANISM: Homo US-09-944-896-42
                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR
                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                                                                                                        LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US00/14042
FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
FILING DATE: July 28, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: PCT
                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: December 1, 2000 APPLICATION NUMBER: PCT/US01/06520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: No. US20020168715Alember APPLICATION NUMBER: PCT/US99/28313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PCT/US99/1252
FILING DATE: June 22, 1999
APPLICATION NUMBER: PCT/US99/21090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US98/19330 FILING DATE: September 16, 1998 APPLICATION NUMBER: PCT/US98/25108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 6
FILING DATE: July 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 0 FILING DATE: March 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09/216,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: February
                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/113,296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                   287 GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                     227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LING DATE: No. US20020168715Alember
                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID
                                                               DATE: September 15, 1999
ATION NUMBER: PCT/US99/28409
DATE: No. US20020168715Alem
                                                                                                                                                                                                                                                                                                                                                                                                           DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DATE: December
                                                                                                                                                                                                                                                                                                                       Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      December 16, 17, N. NUMBER: 09/218,517
N nocember 22, 1998
                                                                                                                                                                                                                                                                                                                                                                                          NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER: PCT/US99/30095 
: December 16, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             March 2, 2000
NUMBER: PCT/US00/08439
March 30, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     February 22,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER: PCT/US00/03565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER: PCT/US99/28301
                                                                                                                                                                                                                                                                                                                                                                                                                                         July 28, 2000
July 28, 2000
2000/32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           February 11,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             December 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                December1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      December
                                                                                                                                                                         1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09/254,311
3, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60/146,222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60/112,850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /US00/05841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /US00/04414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1998
                                                                                                                                                                    Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                     Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999
                                                                                                                                                                      243
0 0 43
```

346 6

20

APPLICANT: APPLICANT: APPLICANT:

Wood, William Tumas, Daniel APPLICANT: APPLICANT: APPLICANT:

APPLICANT:

Kljavin, Ivar Gurney,Austin

Napier, Mary Hillan,Kenneth APPLICANT: APPLICANT: APPLICANT:

Goddard, Audrey Gerritsen,Mary

APPLICANT:

APPLICANT: PPLICANT:

```
Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  γQ
                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                          US-09-944-944-42
                                                                                                                                                                                                                                                          Sequence 42, Application US/09944944 Patent No. US20020173463A1 GENERAL INFORMATION:
                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                    APPLICANT:
                                           APPLICANT: Napier, Mary
APPLICANT: Roy, Margaret
APPLICANT: Tumas, Daniel
APPLICANT: Wood, William
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P2548P1C1
  CURRENT APPLICATION NUMBER: US/09/944,944
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     347
                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                             887
                                                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                                         827
                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baker,
                                                                                                                                                                                                                                                                                                                                                                                                                CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTTCTAG
                                                                                                                       Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                            ValPheAla
                                                                                                                                                                                                                                                                                                                                        GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                      ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGACCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                             Gerritsen, Mary
Goddard, Audrey
                                                                                                                                                         Grimaldi, Christopher
                                                                                                                                                                     Godowski, Paul
                                                                                                                                                                                                     Filvaroff, Ellen
                                                                                                                                                                                                                                      Botstein, David
                                                                                                                                                                                                             Ferrara, Napoleone
                                                                                                                                                                                                                           Eaton, Dan
                                                                                                                                                                                                                                                Kevin
                                                                   POLYPEPTIDES
                                                                   AND
                                                                   NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                             946
                                                                                                                                                                                                                                                                                                                                                                                                                                        886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR PRIOR
                                 PRIOR
                                             PRIOR PRIOR PRIOR
                                                                                                                                  PRIOR PRIOR
                                                                                                                                                                                                                                                                               PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
                                                                                                             PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR
                      PRIOR
                                                                                                                                                         PRIOR
                                                                                                                                                                              PRIOR
                                                                                                                                                                                                    PRIOR
                                                                                                                                                                                                                                     PRIOR
                                                                                                                                                                                                                                                                    PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
R APPLICATION N
R FILING DATE:
R APPLICATION N
R FILING DATE:
R APPLICATION N
                                                                          R FILING DATE:
R APPLICATION N
R FILING DATE:
R APPLICATION N
R FILING DATE:
APPLICATION N
R APPLICATION N
                                                                                                                                                                                               R APPLICATION N
R APPLICATION N
                                                                                                                                                                                                                                  R FILING DATE:
R APPLICATION N
R FILING DATE:
                                                                                                                                                                                                                                                                                                                                                           APPLICATION I
FILING DATE:
APPLICATION I
                                                                                                                                                                                                                                                                                                                                                                                                                 R FILING DATE:
R APPLICATION N
FILING DATE:
                                                      APPLICATION I
FILING DATE:
                                                                                                                                                                                                                                                                                                   APPLICATION : FILING DATE:
                                                                                                                                                                                                                                                                                                                          APPLICATION FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION | FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/112,850
APPLICATION NUMBER: 60/112,850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION |
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION |
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION |
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION |
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION |
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                    FILING DATE:
                                                                                                                                                                              APPLICATION
                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                    APPLICATION
                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                          APPLICATION
                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION
                                                             Z: re-

Z: NUMBER: PC1/-

TE: March 2, 2000

ON NUMBER: PCT/US00/08439

ON NUMBER: PCT/US00/14042
     N NUMBER: PCT/USUU/2011
IE: July 28, 2000
ON NUMBER: PCT/US00/32678
On Number: 1, 2000
                                                                                                                                                                                     TE: June 22, 1999

N NUMBER: PCT/US99/21090

TE: September 15, 1999

N NUMBER: PCT/US99/28409

N NUMBER: PCT/US99/28413

TE: No. US20020173463A1ember 30, 1

N NUMBER: PCT/US99/28301

DN NUMBER: PCT/US99/28301

DN NUMBER: PCT/US99/28301

DE: December1, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                 N NUMBER: 60/113,296
E: December 22, 1998
N NUMBER: 60/146,222
E: July 28, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER: 60
                                                                                                                    : February 11, 2000
NUMBER: PCT/US00/04414
: February 22, 2000
                                                                                                                                                                                                                                                                            NUMBER: 09/254,311
: March 3, 1999
: NUMBER: PCT/US99/12252
: June 22, 1999
                                                                                                                                                                                                                                                                                                                                               NUMBER: 09/216,021
: December 16, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER: 60/074,092
: February 9, 1998
NUMBER: 60/075,945
                                                     NUMBER: PCT/US00/14042
: May 22, 2000
                                                                                                                                                                                                                                                                                                                          NUMBER: 09/218,517 
: December 22, 1998
                                                                                                                                                                                                                                                                                                                                                                      NUMBER: PCT/US98/25108: December 1, 1998
                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER: 60/074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : December 18, 1
NUMBER: 60/070,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER: 60/069,694 : December 16, 1997
                                                                                                                                                        NUMBER: PCT/US00/03565
                                                                                                                                                                  NUMBER: PCT/US99/30095
: December 16, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER: 60/068,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER: 60,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER: 60/069,702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER: 60/069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER: 60,
                                                                                                                                                                                                                                                                                                                                             December
                                                                                                                                                                                                                                                                                                                        December
                                                                                                                                                                                                                                                                                                                                                                                             September 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               December
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17, 1997
1: 60/069,873
ber 17, 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60/069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60/069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60/067
                                                                                                                                                                                                                                                                                                                                                                                                      PCT/US98/19330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               œ'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /069,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /069335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1998
```

```
RESULT 5
US-09-944-907-42
                                   밁
                                             δ
                                                              45 da 65
                                                                                                                               밁
                                                                                                                                               δ
                                                                                                                                                                    В
                                                                                                                                                                                ΩV
                                                                                                                                                                                                     g
Qy
                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                 Ωy
                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                 δÔ
                                                                                                                                                                                                                                                                                                                                                                                                 ₽
                                                                                                                                                                                                                                                                                                                                                                                                                  ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores: Pred. No.: Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-944-944-41 (1-1377) x US-09-944-944-42
  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: HOMO:
-09-944-944-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R FILING DATE:
ER OF SEQ ID NO
D NO 42
                                                947
                                                                                                                   827
                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                    287
                                   241
                                                                   221
                                                                                                   201
                                                                                                                                                    767
                                                                                                                                                                     161
                                                                                                                                                                                     707
                                                                                                                                                                                                     141
                                                                                                                                                                                                                      647
                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                       587
                                                                                                                                                                                                                                                                                       527
                                                                                                                                                                                                                                                                                                                                                                                     347
                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                      467
                                                                                                                                                                                                                                                                                                                                                     407
                                                                                                                                                                                                                                                                                                                                                                                                                                                      227
  42,
                                                                                                                                                                                                                                                                                                                                                                      41
                                                                                                                                                                                                                                                                                                      81
                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                      21
                                 GICTITGCT 955
                                                                                                                                  CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTTCTAG
                                                                                                                                                                                                                                                                    GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                    GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                     CATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCGCCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                     GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                   ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                     AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                                                                                                                                                     GGGCCGCGAGGAGGCGGGACCCGCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                     AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
  Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3: February
NOS: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.01e-57
1325.00
100.00%
100.00%
52.17%
9
                                   243
 US/09944907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243
0
0
0
                                                                                                                                                                                                     160
                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                     100
                                                                                  946
                                                                                                                  886
                                                                                                                                                                    180
                                                                                                 220
                                                                                                                                  200
                                                                                                                                                   826
                                                                                                                                                                                     766
                                                                                                                                                                                                                      706
                                                                                                                                                                                                                                                     646
                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                    586
                                                                                                                                                                                                                                                                                                                    526
                                                                                                                                                                                                                                                                                                                                     90
                                                                                                                                                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                     406
                                                                                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                                                                    346
                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                    ; LENGTH: 243
; TYPE: PRT
; ORGANISM: Homo S
US-09-944-907-42
 밁
            δÃ
                                В
                                             Q
                                                                 밁
                                                                              δõ
                                                                                                 밁
                                                                                                                Š
                                                                                                                                  밁
                                                                                                                                                 Š
                                                                                                                                                                   밁
                                                                                                                                                                                  Š
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                     US-09-944-944-41 (1-1377) x US-09-944-907-42 (1-243)
                                                                                                                                                                                                                                                                                      DB:
                                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                                                                             Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
NUMBER OF SEQ ID NOS: 120
SEQ ID NO 42
LENGTH: 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Publication No. US20020198147A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin
APPLICANT: Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: SECRETED AND TRANSMEM TITLE OF INVENTION: ACIDS ENCODING THE S. FILE REFERENCE: P2548 PIC1 CURRENT APPLICATION NUMBER: US/09/944,907 CURRENT FILING DATE: 2001-08-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                    287
 141
                 647
                                 121
                                                 587
                                                                 101
                                                                                  527
                                                                                                                  467
                                                                                                                                                   407
                                                                                                                                                                                   347
                                                                                                                                                                                                                                                      227
                                                                                                 81
                                                                                                                                  61
                                                                                                                                                                    41
                                                                                                                                                                                                    21
                                                                                                                                                                                                                                    \vdash
GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGTCTAC
                                        GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGACCAGGGACATTACGACGCCGTCACC
                                                                GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                    Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
                                AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThr
                                                                                                                                                                                     CATGGCAGCCAGGGCTTGCCGGGCCGCGATGGCCGCGACGGCCGCGACGGCGCGCCCGGG
                                                                                                                                                                                                    AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Napier, Mary
Roy, Margaret
Tumas, Daniel
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ferrara, Napoleone Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                            Sapien
                                                                                                                                                                                                                                                                                    1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AND TRANSMEMBRANE
                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                             SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                      POLYPEPTIDES
                                                                                                                                                                                                                                                                                    243
0 43
0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEIC
                                           646
                                                                 120
                                                                                 586
                                                                                                 100
                                                                                                                  526
                                                                                                                                  80
                                                                                                                                                   466
                                                                                                                                                                  60
                                                                                                                                                                                    406
                                                                                                                                                                                                    40
                                                                                                                                                                                                                                    20
 160
```

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                             Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                  ρ
                                          밁
                                                             Q
                                                                                                                                                                  Alignment Scores: Pred. No.:
   밁
                                                                                      US-09-944-944-41 (1-1377) x US-09-944-929-42 (1-243)
                                                                                                                                              Percent Similarity:
                                                                                                                                                         Score:
                                                                                                                                                                                                  US-09-944-929-42
                                                                                                                                                                                                           SEQ ID NO 42
LENGTH: 243
TYPE: PRT
ORGANISM: HOMO S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-944-929-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 42, Applica Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/944,929
CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
NUMBER OF SEQ ID NOS: 120
                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                         APPLICANT: WOOD, WIlliam
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P2548P1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Baker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                       287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   707
   21
                                             μ
                                                                                                                                                                                                                                                                                                                                                                                   Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValPheAla 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCAAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Filvaroff, Ellen
Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application US/09944929
No. US20020197612A1
                                                                                                                                                                                                                                                                                                                                                      Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Botstein, David
                                                                                                                                                                                                                                                                                                                                                               Roy, Margaret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                         Napier, Mary
                                                                                                                                                                                                            Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kevin
                                                                                                            1.01e-57
1325.00
100.00%
100.00%
100.00%
52.17%
                                                                                                                      Conservative: Mismatches: Indels:
                                                                                                            Gaps:
                                                                                                                                                      Length:
Matches:
                                                                                                            0 0 243
                                                                                                                                                                                                                                                                                                                                AN
                                                                                                                                                                                                                                                                                                                                NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      826
   40
                      346
                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                                                                     RESULT 7
US-10-028-072-362
                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωy
                                                                                                                                                                                                                                                                                                                     밁
                                                    APPLICANT: Tumas, Dai
APPLICANT: Watanabe,
APPLICANT: Wood, Will
APPLICANT: Zhang
TITLE OF INVENTION:
                                                                                                                                                                                                                                                             Sequence 362, A Publication No.
                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                APPLICANT:
APPLICANT:
                                                                                                         APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
 FILE REFERENCE:
CUTRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/049911
PRIOR FILING DATE: 1997-06-18
                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           947
                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   527
                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                    Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baker,Kevin
                                                                                                                                                                                                                                                                                                                                         GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                               ATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                         ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCCGCGAGGAGGCGGGACCCGCGGGGCCCCACCGGGCCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                Desnoyers, Luc
Filvaroff, Ellen
                                                                            Wood, William
                                                                                     Watanabe, Colin K
                                                                                                 Tumas,Daniel
                                                                                                         Stewart, Timothy A.
                                                                                                                                                                            Gerritsen, Mary E
                                                                                                                                                                                       Gao, Wei-Qiang
                                                                                                                                                                                                                      Deforge, Laura
                                                                                                                                                                                                                                 Beresini, Maureen
                                                                                                                                                                                                                                                               Application US/10028072
b. US20030004311A1
                                                                                                                                                                                                                                                                                                                     243
```

240

988

220

180

766

826

200

160

706

646 140 406 466 80 526 100

APPLICATION NUMBER: 60/059115 FILING DATE: 1997-09-17 APPLICATION NUMBER: 60/059117 FILING DATE: 1997-09-17

APPLICATION NUMBER: 60/056974
FILING DATE: 1997-08-26
APPLICATION NUMBER: 60/059113
FILING DATE: 1997-09-17

· · · · · · · · · · · · · · · · · · ·		·	
		. The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the	
PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR	PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR	PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR	PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR
FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE FILING DATE FILING DATE APPLICATION FILING DATE APPLICATION	APPLICATION FILING DATE APPLICATION FILING DATE FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE	APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N FILING DATE: APPLICATION N	FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE
1998-05-22 UMBER: 60/0864 1998-05-22 UMBER: 60/0871 1998-05-28 UMBER: 60/0880 1998-06-04 1998-06-00 UMBER: 60/0887 1998-06-10	UMBER: 60 1998-05-0 1998-05-0 1998-05-1 1998-05-1 1998-05-1 UMBER: 60 1998-05-1 UMBER: 60 1998-05-1 UMBER: 60 1998-05-1 UMBER: 60 1998-05-1 UMBER: 60 1998-05-1 UMBER: 60	UMMBER: 60 11998-02-2 11998-03-2 11998-03-3 11998-03-3 11998-04-0 11998-04-0 11998-04-0 11998-04-1 11998-04-1 11998-04-1 11998-04-1 11998-04-2 11998-04-2 11998-04-2 11998-04-2 11998-04-2 11998-04-2 11998-04-2 11998-04-2	1997-12-11 109MBER: 60/06933 1997-12-16 1997-12-16 1997-12-16 1998-01-23 1998-01-23 1998-02-04 109MBER: 60/07408 11998-02-09 11998-02-09 11998-02-09 11998-02-09 11998-02-09 11998-02-09 11998-03-02 11998-03-02 11998-03-25

OR PELICATION NUMBER: 60/059122
OR PILING DATE: 1997-09-17
OR APPLICATION NUMBER: 60/059184
OR APPLICATION NUMBER: 60/059263
OR FILING DATE: 1997-09-19
OR APPLICATION NUMBER: 60/059380
OR FILING DATE: 1997-09-19
OR APPLICATION NUMBER: 60/059380
OR FILING DATE: 1997-09-19
OR APPLICATION NUMBER: 60/06285
OR FILING DATE: 1997-10-17
OR APPLICATION NUMBER: 60/06286
OR FILING DATE: 1997-10-17
OR APPLICATION NUMBER: 60/062816
OR FILING DATE: 1997-10-24
OR APPLICATION NUMBER: 60/062816
OR FILING DATE: 1997-10-24
OR APPLICATION NUMBER: 60/063045
OR FILING DATE: 1997-10-24
OR APPLICATION NUMBER: 60/063045
OR FILING DATE: 1997-10-24
OR APPLICATION NUMBER: 60/063082
OR FILING DATE: 1997-10-24
OR APPLICATION NUMBER: 60/063082
OR FILING DATE: 1997-10-24
OR APPLICATION NUMBER: 60/063127
OR FILING DATE: 1997-10-24
OR APPLICATION NUMBER: 60/063327
OR FILING DATE: 1997-10-27
OR APPLICATION NUMBER: 60/063561
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/063561
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/06373
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/06373
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/06373
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/06373
OR APPLICATION NUMBER: 60/065186
OR FILING DATE: 1997-11-12
OR APPLICATION NUMBER: 60/065846
OR FILING DATE: 1997-11-24
OR APPLICATION NUMBER: 60/065846
OR FILING DATE: 1997-11-24
OR APPLICATION NUMBER: 60/065846
OR FILING DATE: 1997-11-24
OR APPLICATION NUMBER: 60/06534
OR APPLICATION NUMBER: 60/065846
OR FILING DATE: 1997-11-24
OR APPLICATION NUMB

APPLICATION NUMBER:

1998-06-

60/088858 60/088810

APPLICATION NUMBER:

```
Alignment :
Pred. No.:
                                                                                                                                   γ
                                                                                                                                                                          Qy
                                                                                                                                                                                              밁
                                                                                                                                                                                                                     Ωy
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity: Query Match:
DB:
                                               Ωy
                                                                        밁
                                                                                        δÃ
                                                                                                            밁
                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                    US-09-944-944-41 (1-1377) x US-10-028-072-362 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                     Score:
          Ş
                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/090349
FILING DATE: 1998-06-23
APPLICATION NUMBER: 60/090429
FILING DATE: 1998-06-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 19/98-06-11
APPLICATION NUMBER: 60/089532
FILING DATE: 1998-06-17
APPLICATION NUMBER: 60/089599
FILING DATE: 1998-06-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 1998-0' APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/090863 FILING DATE: 1998-06-26 APPLICATION NUMBER: 60/091360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/090445
FILING DATE: 1998-06-24
APPLICATION NUMBER: 60/090538
FILING DATE: 1998-06-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/089907
FILING DATE: 1998-06-18
APPLICATION NUMBER: 60/089947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1998-06-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-07-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scores:
                                                   647
                                                                        121
                                                                                            587
                                                                                                                 101
                                                                                                                                       527
                                                                                                                                                                                467
                                                                                                                                                                                                                        407
                                                                                                                                                                                                                                                                 347
                                                                                                                                                                                                                                                                                                         287
                                                                                                                                                                                                                                                                                                                                                 227
          707
                               141
                                                                                                                                                                                                   61
                                                                                                                                                                                                                                             41
                                                                                                                                                            81
                                                                                                                                                                                                                                                                                     21
                                                                                                                                                        CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTCTTTCCTAG
                                                   GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                       {\tt AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThree} \\
                                                                                  GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACC
                                                                                                                                                                                                GCTCCGGGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                           GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                               GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER: 60/091982: 1998-07-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1998-07-02
                                                                                                                                                                                                                                                                                                                                                                                           1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/091519
                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                                          243
0 0
0
0
                                                                                                                                                                                                                                                               406
                                                                                                                120
                                                                                                                                    586
                                                                                                                                                                                                                       466
                               160
                                                   706
                                                                        140
                                                                                           646
                                                                                                                                                                                                   80
                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                        346
          766
```

```
Ş
                                                                                       밁
                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                     밁
                                                                                                                                                                               Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-121-049-362
                                                                                                                                        US-09-944-944-41 (1-1377) x US-10-121-049-362 (1-243)
                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                         us-10-121-049-362
                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                          FILE REFERENCE: p3330R1C17
CURRENT APPLICATION NUMBER: US/10/121,049
CURRENT FILING DATE: 2002-04-12
Prior Application removed - See File
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 362
LENGTH: 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Publication No. US20030022239A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C17
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                LENGTH: 24
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                      ORGANISM:
                                                                                                                                                                                                                                  No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
              347
                                                               287
                                                                                                                 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          362,
                                     21
                                                                                    CATGGCAGCCAGGGCTTGCCGGGCCGGCGATGGCCGCGACGGCCGCGACGGCGCGCGGGGCCCGGG
                                                               GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                     Ното
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             leLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln 180
                                     AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCTTTGCT 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGGTGACTACATTGGCATCTATGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Watanabe, Colin K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tumas,Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stewart, Timothy A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gerritsen, Mary E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Beresini, Maureen
                                                  Application US/10121049
                                                                                                                                                                                                                                                                                    Sapien
                                                                                                                                                                    1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       שי
                                                                                                                                                                                                                                                                                                                                                See File Wrapper or
                                                                                                                                                                              Conservative: Mismatches: Indels:
                                                                                                                                                                                                                   Length:
Matches:
                                                                                                                                                                243
243
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      946
             406
                                      40
                                                             346
                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
```

```
RESULT 9
US-10-123-904-362
                                                                                                              APPLICANT: Baker, Kevin P
APPLICANT: Beresini, Mau
APPLICANT: Beresini, Mau
APPLICANT: Desnoyers, Lu
APPLICANT: Desnoyers, Lu
APPLICANT: Desnoyers, Lu
APPLICANT: Gen. Wei Odian
APPLICANT: Gedard, Audr
APPLICANT: Godowski, Pau
APPLICANT: Godowski, Pau
APPLICANT: Gunney, Austi
APPLICANT: Sherwood, Ste
APPLICANT: Stewart, Tinno
APPLICANT: Stewart, Tinno
APPLICANT: Stewart, Tinno
APPLICANT: Tunas, Daniel
                                                                 APPLICANT:
APPLICANT:
APPLICANT:
TITLE OF IN
TITLE OF IN
                                                                                                                                                                                                                                                Sequence 362, Application No. US20 GENERAL INFORMATION
                                    APPLICANT: Zhang, Zemin TITLE OF INVENTION: SECRETED AND TRANSMEM TITLE OF INVENTION: ACIDS ENCODING THE SIFILE REFERENCE: 93330R1C54
CURRENT APPLICATION NUMBER: US/10/123,904
CURRENT FILING DATE: 2002-04-16
 r Application :
ER OF SEQ ID NO
D NO 362
GTH: 243
                                                                                                                                                                                                                                                                                                                         947
                                                                                                                                                                                                                                                                                                                                                                887
                                                                                                                                                                                                                                                                                                                                                                                                   827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               647
                                                                                                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                        767
                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41
                                                                                                                                 Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                               ATCAAGACAGACAGCACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                   GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACCTCGAGGGGACCCCC
                                                                                                                                                                                                                                                                                                                    GICTITGCI
                                                                                                                                                                                                                                                                                                          ValPheAla
                                                                                                                                                                                                 DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                Stewart, Timothy A. Tumas, Daniel
                                                                                                                                                                                Gao, Wei-Qiang
Gerritsen, Mary E.
                                                                                              Wood, William
                                                                                                       Watanabe, Colin K
                                                                                                                                                                                                                               Beresini, Maureen
                                                                                                                                                                                                                                                         Application US/10123904
5. US20030022328A1
                   removed NOS: 550
                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                           955
                             See File Wrapper
                                                                 TRANSMEMBRANE ING THE SAME
                              유
                                                                            POLYPEPTIDES
                              Palm
                                                                            AND
                                                                            NUCLEIC
                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                              946
                                                                                                                                                                                                                                                                                                                                                                                                  886
                                                                                                                                                                                                                                                                                                                                                                                                                                      826
                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                              RESULT 10
US-10-140-470-362
                                                                                           δÃ
                                                                                                                                Š
                                                                                                                                                                    Š
                                                                                                                밁
                                                                                                                                                   망
                                                                                                                                                                                         В
                                                                                                                                                                                                        Š
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-944-944-41 (1-1377) x US-10-123-904-362 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: Hom
US-10-123-904-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local S
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores: Pred. No.:
                  Sequence 362, Applic Publication No. US20 GENERAL INFORMATION:
APPLICANT: Baker, Kevin P. APPLICANT: Beresini, Maureen
                                                                                             947
                                                                                                                                 887
                                                                                                                                                                                          181
                                                                                                                221
                                                                                                                                                                       827
                                                                                                                                                                                                          767
                                                                            241
                                                                                                                                                    201
                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                707
                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                           587
                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                                                                              527
                                                                                                                                                                                                                                                                                                                                                                                                  467
                                                                                                                                                                                                                                                                                                                                                                                                                                       407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                287
                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L
                                                                          ||||||||||
| ValPheAla
                                                                                                                                                   Homo
                                                                                              GTCTTTGCT
                                                                                                                         ATCAAGACAGACAGCATTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                                                                        GGGCCGCGAGGAGAGGCCGGGACCCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                   GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                                                                                                                                               CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                 GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                           Application US/10
o. US20030022331A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sapier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                           243
                                      US/10140470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
0
0
0
```

망 Ϋ́ В Š 밁 Š 밁

NUMBER SEQ ID N

Prior

946

886

200 826 180

766

160

140 646 120 586 100 526 406

40

20

80 466 60

S P

οy

D Q 밁 δ 8 Ϋ́ 밁 δ 밁 õ 밁

```
Best Local Si
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                      Pred.
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Home
US-10-140-470-362
                                                                                                                                                                                                                                                                                                                                                           US-09-944-944-41 (1-1377) x US-10-140-470-362 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330RIC160

CURRENT APPLICATION NUMBER: US/10/140,470

CURRENT FILING DATE: 2002-05-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prior Application removed - NUMBER OF SEQ ID NOS: 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EQ ID NO 362
LENGTH: 243
                                                                                                                                                                                                                                                                                                                                                                                                                                No . .
  161
                   707
                                      141
                                                         647
                                                                             121
                                                                                                 587
                                                                                                                     101
                                                                                                                                        527
                                                                                                                                                                             467
                                                                                                                                                                                                                     407
                                                                                                                                                                                                                                                           347
                                                                                                                                                                                                                                                                                                                                          227
                                                                                                                                                                                                                                         41
                                                                                                                                                           81
                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                       ш
                                                                                                                                                                                                                                                                             GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                           CATGCAGCCAGGGCTTGCCGGGCCGGGATGGCCGCGACGGCCGCGACGGCGCCCGGG
                                                                                                                                                                                                                                                                                                                  MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
GGGCCGCGAGGAGAGGCGGGACCCGGGGGCCCACCGGGCCTGCCGGGGAGTGCTCGGTG
                                                                                                                                                                                                                                                                                                                             ATGAGGCCACTCCTCCTGCTGCTGCTGGCGGCTGGCGGCGCTGGCCCCCACTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ното
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
                                                                                                                 CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                          GlyProArgGlyGluAlaGlyProAlaGlyProThrGlyProAlaGlyGluCysSerVal
                                                                                                                                                                                                                                      H1sGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Watanabe, Colin K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sapien
                                                                                                                                                                                                                                                                                                                                                                                 1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       See Palm or File
                                                                                                                                                                                                                                                                                                                                                                                        Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                               Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                              AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEIC
                                                                                                                                                          100
                                                                                                                                                                            526
                                      160
                                                                                               646
                                                                                                                   120
                                                                                                                                      586
                                                                                                                                                                                                                    466
                                                                                                                                                                                                                                                                                                346
                                                         706
                                                                             140
                                                                                                                                                                                                 80
                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                           406
                                                                                                                                                                                                                                                                               40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION: APPLICANT: McCarth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 68,
Publication
                                                                                                                                                                   PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                   PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                       PRIOR PRIOR
                                                                                                                                                                                                                                                                                                           PRIOR
PRIOR
PRIOR
PRIOR
         PRIOR
PRIOR
PRIOR
                                                                                                PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No.
```

δõ 밁 οy 밁 Ωy 망 ρy В Ω 밁 γQ 망 Ωy В Qy

δĀ 밁

```
CURRENT APPLICATION NUMBER: US/09/
CURRENT FILING DATE: 2001-03-01
PRIOR APPLICATION NUMBER: 09/183,
PRIOR FILING DATE: 1998-10-30
PRIOR APPLICATION NUMBER: 09/223,
PRIOR FILING DATE: 1998-12-30
PRIOR APPLICATION NUMBER: 09/223,
PRIOR APPLICATION NUMBER: 09/223,
PRIOR APPLICATION NUMBER: 09/224,
PRIOR APPLICATION NUMBER: 09/224,
PRIOR APPLICATION NUMBER: 09/224,
PRIOR APPLICATION NUMBER: 09/259,
PRIOR APPLICATION NUMBER: 09/259,
PRIOR APPLICATION NUMBER: 09/259,
PRIOR APPLICATION NUMBER: 09/259,
PRIOR APPLICATION NUMBER: 09/2759,
PRIOR APPLICATION NUMBER: 09/2759,
PRIOR APPLICATION NUMBER: 09/122,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: SECRETED PROTEINS FILE REFERENCE: 7853-227-999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OR APPLICATION NUMBER: 09/183,175
OR FILING DATE: 1998-10-30
OR APPLICATION NUMBER: 09/223,094
OR FILING DATE: 1998-12-30
OR APPLICATION NUMBER: 09/223,546
OR FILING DATE: 1998-12-30
OR APPLICATION NUMBER: 09/224,246
OR FILING DATE: 1998-12-30
OR APPLICATION NUMBER: 09/259,388
OR FILING DATE: 1999-02-26
OR APPLICATION NUMBER: 60/122,458
OR APPLICATION NUMBER: 09/597,993
OR FILING DATE: 2000-06-19
OR APPLICATION NUMBER: 09/599,596
OR FILING DATE: 2000-06-22
OR APPLICATION NUMBER: 09/630,334
OR APPLICATION NUMBER: 09/605,565
OR APPLICATION NUMBER: 09/606,565
OR APPLICATION NUMBER: 09/606,565
OR FILING DATE: 2000-06-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OR FILING DATE: 1999-03-01
OR APPLICATION NUMBER: 09/31
OR FILING DATE: 1999-05-14
OR APPLICATION NUMBER: 09/33
OR FILING DATE: 1999-06-18
OR APPLICATION NUMBER: 09/34
OR FILING DATE: 1999-06-29
OR APPLICATION NUMBER: 09/34
OR FILING DATE: 1999-06-30
OR FILING DATE: 1999-07-30
OR APPLICATION NUMBER: 09/36
OR FILING DATE: 1999-09-20
OR APPLICATION NUMBER: 09/36
OR FILING DATE: 1999-09-20
OR FILING DATE: 1999-09-20
OR FILING DATE: 1999-09-20
OR FILING DATE: 1999-09-20
OR FILING DATE: 1999-09-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OR FILING DATE: 09
OR FILING DATE: 1999-09-3
OR FILING DATE: 1999-12-2
OR FILING DATE: 1999-12-2
OR APPLICATION NUMBER: 09
OR TITLY OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF 
                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/9
FILING DATE: 2000-02-25
APPLICATION NUMBER: 09/9
FILING DATE: 2000-03-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1999-12-29
APPLICATION NUMBER: 09/474,072
FILING DATE: 1999-12-29
                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 09/
FILING DATE: 2000-05-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GICTITGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/09796753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US20030027998A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UMBER: 09/409,634
1999-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09/336,536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09/342,687
                                                                                                                                                                                                                                                                                                                                                                                                                                                              09/516,745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09/514,010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09/474,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09/399,723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09/365,164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09/345,464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09/312,359
                                                                                                                                                                                                                                                                                                                                                                            09/572,002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09/471,179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     us/09/796,753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
```

```
õ
                 В
                              Š
                                            뮻
                                                            δ
                                                                                밁
                                                                                             Ş
                                                                                                             멼
                                                                                                                             Ş
                                                                                                                                                 밁
                                                                                                                                                             ρ
                                                                                                                                                                                  밁
                                                                                                                                                                                               δ
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                              Ωy
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                               ρ
                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: HOMO
US-09-796-753-68
                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-944-944-41 (1-1377) x US-09-796-753-68 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 09/60
PRIOR FILING DATE: 2000-06-29
PRIOR PRIOR PELICATION NUMBER: 09/67
PRIOR FILING DATE: 2000-09-20
PRIOR APPLICATION NUMBER: 09/67
PRIOR APPLIING DATE: 2000-09-30
NUMBER OF SEQ ID NOS: 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ID NO 68
ENGTH: 243
                                                 201
                                                                                   181
                                                                                                   767
                                                                                                                   161
                                                                                                                                  707
                                                                                                                                                  141
                                                                                                                                                                  647
                                                                                                                                                                                   121
                                                                                                                                                                                                  587
                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                  527
                                                                                                                                                                                                                                                                                                                                   347
                                                                                                                                                                                                                                                                   467
                                                                                                                                                                                                                                                                                                   407
                                                                                                                                                                                                                                                                                                                                                                                                   227
                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                   41
                                                                                                                                                                                                                                                                                                                                                  21
                                               GTCTTTGCT 955
               AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                  GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                                                                 GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                  GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGACATTACGACGCCGTCACC
                                                                                                                                                                                                                                                                                  AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                 1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09/677,751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09/665,666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09/606,317
                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                 243
0 0 0 43
                                                                                                                                                                                  140
                                                                                                                                                                                                                                                   100
                                946
                                                                                                 826
                                                                                                                 180
                                                                                                                                                  160
                                                                                                                                                                  706
                                                                                                                                                                                                 646
                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                  586
                                                                                                                                                                                                                                                                                  80
                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                  406
                                                                                 200
                                                                                                                                 766
                                                                                                                                                                                                                                                                  526
                                                                                                                                                                                                                                                                                                  466
                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                                  346
                                                                                                                                                                                                                                                                                                                                                                                  20
               밁
                           ν
                                               밁
                                                              Š
                                                                                 밁
                                                                                             Ş
                                                                                                                В
                                                                                                                               γQ
                                                                                                                                                 밁.
                                                                                                                                                            δÃ
                                                                                                                                                                                  밁
                                                                                                                                                                                                 Š
                                                                                                                                                                                                                 US-09-944-944-41 (1-1377) x US-10-175-746-362 (1-243)
                                                                                                                                                                                                                                         Query Match:
                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo US-10-175-746-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
US-10-175-746-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Вb
                                                                                                                                                                                                                                                                                                                 Prior Application removed -
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 362
LENGTH: 243
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 362, Application US/10175746 Publication No. US20030027270A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C353
CURRENT APPLICATION NUMBER: US/10/175,746
CURRENT FILING DATE: 2002-06-19
                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                          ORGANISM:
587
                 101
                                                                 467
                                                                                                 407
                                                                                                                                 347
                                                                                                                                                                  287
                                                                                                                                                                                                 227
                                                81
                                                                                 61
                                                                                                                41
                                                                                                                                                 21
                                                                                                                                               GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
             ValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                        Tumas, Daniel
Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                               Smith, Victoria
Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Beresini, Maureen
                                                                                                                                                                                                                                                                                                         Sapien
                                                                                                                                                                                                                                                                                                                                                                                                  Zemin
                                                                                                                                                                                                                                 1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                See File Wrapper
                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                 ဌ
                                                                                                                                                                                                                                 0000243
```

406 406 466 80

120

646

. 346

466 80 526 406

40

20

```
ğ
                                                              Percent Similarity:
Best Local Similarity:
                                                                                            Pred
                                                                                                                      ; ORGANISM: Homo US-10-176-918-362
                                                                                                                                                                                                                                                                                                                                                                                           US-10-176-918-362
; Sequence 362, Application US/10176918
; Publication No. US20030027275A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             64 G6 G7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                              Query Match:
DB:
                                                                                  Score:
                                                                                                    Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 13
                           US-09-944-944-41 (1-1377) x US-10-176-918-362 (1-243)
                                                                                                                                       Prior Application re
NUMBER OF SEQ ID NOS: 5
SEQ ID NO 362
LENOTH: 243
TYPE: PRT
                                                                                                                                                            SEQ
                                                                                                                                                                                    TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C382
CURRENT APPLICATION NUMBER: US/10/176,918
CURRENT FILING DATE: 2002-06-20
                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                            No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           827
           227
                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCTTTGCT
                                                                                                                                                                                                                                         Tumas, Daniel
Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCAAGACAGACAGCCTTCTCCGGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        {\tt AlaProLeuProPheAspArgValLeuValAsnGluGlnGlyHisTyrAspAlaValThree} \\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                                                                                                                                                                                                                   Zhang, Zemin
                                                                                                                                                                                                                                                                               Sherwood, Steven Smith, Victoria
                                                                                                                                                                                                                                                                                                 Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                            Gao, Wei-Qiang
Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                              Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                      Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                 DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                         Beresini, Maureen
                                                                                                                                Sapien
                                               1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                    removed
: 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                  243
                                                                                                                                                                                                                                                                                                                                                                                    .
                                                                                                                                                                             See
                                                                                                                                                                             File Wrapper
                                            Length: Matches: Conservative: Mismatches: Indels: Gaps:
                                                                                                                                                                                                                         POLYPEPTIDES
                                                                                                                                                                             ç
                                             243
243
0
0
                                                                                                                                                                                                                         AND
                                                                                                                                                                                                                         NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160
          286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   766
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                              ğ
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                ρ
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                멁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                              US-10-176-921-362
                                                                                                                                                                  Sequence 362, Application US/10176921 Publication No. US20030027276A1 GENERAL INFORMATION:
                                                    APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
                          APPLICANT:
APPLICANT:
         APPLICANT:
                                                                                                                                                          APPLICANT:
OF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       467
                                                                                                                                                                                                                                           947
                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                             141
                                                                                                                                                                                                                                                                                                                                                                                                                              647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       527
                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                  827
                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                      767
                                                                                                                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
 INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                               Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                          Baker, Kevin
                                                                                                                                                                                                                         ValPheAla
                                                                                                                                                                                                                                           GTCTTTGCT 955
                                                                                                                                                                                                                                                           GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                     GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACGGTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGGCCTTCCAGGCACGCCGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp
                                                                                                                                                                                                                                                                                                                                                      MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
        Wood, William
Zhang, Zemin
                                                                                                  Gao, Wei-Qiang
Gerritsen, Mary E
                                                                                                                    Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                       Beresini, Maureen
DeForge, Laura
                          Watanabe, Colin K
                                    Tumas,Daniel
                                            Stewart, Timothy A.
                                                      Smith, Victoria
SECRETED AND
                                                                                                                                                                                                                         243
                                                                                                                                                          Р.
TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
```

```
CURRENT APPLICATION NUMBER: US/10/176,921
CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrapper
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 362
LENGTH: 243
TYPE: PRT
ORGANISM: Homo Sapien
US-10-176-921-362
                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local S:
Query Match:
DB:
밁
            δ
                               밁
                                           δõ
                                                              밁
                                                                             δ
                                                                                               밁
                                                                                                           õ
                                                                                                                             망
                                                                                                                                           Q
                                                                                                                                                                В
                                                                                                                                                                           Š
                                                                                                                                                                                                ₽
                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                            δõ
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-944-944-41 (1-1377) x US-10-176-921-362 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE: P3330R1C288
241
                                               887
                               221
                                                                201
                                                                               827
                                                                                                              767
                                                                                                                                161
                                                                                                                                                                 141
                                                                                                                                                                                647
                                                                                                                                                                                                 121
                                                                                                                                                                                                                587
                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                             347
                                                                                                181
                                                                                                                                               707
                                                                                                                                                                                                                                                                                467
                                                                                                                                                                                                                                                                                                                407
                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                               21
ValPheAla
                                                                                                                                                                                              MetArgProLeuLeuValLeuLeuLeuGlyLeuAlaAlaGlySerProProLeuAsp
                                                               GGCAAGTTCACCTGCCAGGTGCCTGGGGGTCTACTTCGCCGTCCATGCCACCGTCTAC
                                                                                                                                                                                                                             CATGCAGCCAGGGCTTGCCGGGCCGGGCGGATGGCCGCGACGGCCGCGACGGCGCCGGG
               GTCTTTGCT 955
                                                                               CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGTGGCTACATTGGCATCTATGCCAGC
                                                                                                                IleLysThrAspSerThrPheSerGlyPheLeuValTyrSerAspTrpHisSerSerPro
                                               ATCAAGACAGACACCTTCTCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA
                                                                                                                                ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln
                                                                                                                                                                GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr
                                                                                                                                                                                                                                                                                                                GCTCCGGGAGAGAAAGGCGAGGGCGGGAGGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                                                                                                                                                              HisGlySerGlnGlyLeuProGlyArgAspGlyArgAspGlyArgAspGlyAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                               1.01e-57
1325.00
100.00%
100.00%
52.17%
9
243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENCODING THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              See File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length: Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                             243
0 43
                                                                                                                826
                                                                                                                                180
                                              946
                                                                                                                                                766
                                                                                                                                                                160
                                                                                                                                                                                706
                                                                                                                                                                                                140
                                                                                                                                                                                                                646
                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                100
                                                                                                                                                                                                                                                                              526
                                                                                                                                                                                                                                                                                                                                              406
                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                466
                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                               40
                                                                                                                                                                                                                                                                                                                                                                                              20
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                5
                                              뭕
                                                                 δõ
                                                                                              В
                                                                                                                    δÃ
                                                                                                                                               밁
                                                                                                                                                                δ
                                                                                                                                                                                             B
                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: PRT
; ORGANISM: Homo
US-10-137-865-362
                                                                                                                                                                                                                                                                                                                                          US-09-944-944-41 (1-1377) x US-10-137-865-362 (1-243)
                                                                                                                                                                                                                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
US-10-137-865-362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 550
SEQ ID NO 362
LENGTH: 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Baker, Ke
APPLICANT: Beresin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 362, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Zhang, Zemin TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C154

CURRENT APPLICATION NUMBER: US/10/137,865

CURRENT FILING DATE: 2002-05-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Prior Application removed -
 121
                                               101
                                                                                                                      467
                                                                                                                                                                     407
                                                                                                                                                                                                                     347
                                                                                                                                                                                                                                                                     287
                                                                                                                                                                                                                                                                                                                     227
                                                                                               81
                                                                                                                                               61
                                                                                                                                                                                             41
                                                                                                                                                                                                                                             21
                                                                                                                                                                                                                                                                                          GCTCCGGGAGAGAAAGGCGAGGGCGGGAGCCGGGACTGCCGGGACCTCGAGGGGACCCC
                                                                                                                                                                                            GCACCCTTGCCCTTCGACCGCGTGCTGGTGAACGAGCAGGGACATTACGACGCCGTCACC
                                                         CCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCGTCTGAC
                                                                                                                                                                                                                                                                     GACAACAAGATCCCCAGCCTCTGCCCGGGGCACCCCGGCCTTCCAGGCACGCCGGGCCAC
                                               {\tt ProProArgSerAlaPheSerAlaLysArgSerGluSerArgValProProProSerAsp}
                                                                                                                                               AlaProGlyGluLysGlyGluGlyGlyArgProGlyLeuProGlyProArgGlyAspPro
                                                                                                                                                                                                                                             AspAsnLysIleProSerLeuCysProGlyHisProGlyLeuProGlyThrProGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baker, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerritsen, Mary E
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/10137865
b. US20030032155A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sapien
                                                                                                                                                                                                                                                                                                                                                                  1.01e-57
1325.00
100.00%
100.00%
52.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     See Palm
                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or File
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEIC
                                                                                                                                                                     466
                         646
                                                                                               100
                                                                                                                       526
                                                                                                                                                                                                                     406
                                                                                                                                               80
                                                                                                                                                                                             60
                                                                                                                                                                                                                                             40
                                                                                                                                                                                                                                                                  346
                                                                                                                                                                                                                                                                                            20
```

	. ValPheAla 243	241	밁
	/ GTCTTTGCT 955 ·	947	Ϋ́
40		221	ᄝ
946	ATCAAGACAGACACCATTCTCCCGGATTTCTGGTGTACTCCGACTGGCACAGCTCCCCA	. 887	δ
20	ProGluAspGlnValTrpValGlnValGlyValGlyAspTyrIleGlyIleTyrAlaSer 220	201	뮹
886	CCTGAGGACCAAGTGTGGGTGCAGGTGGGTGACTACATTGGCATCTATGCCAGC	827	δ
200	PhePheGlyGlyTrpProLysProAlaSerLeuSerGlyGlyAlaMetValArgLeuGlu	181	뮹
826	TTTTTCGGGGGGTGGCCCAAGCCAGCCTCGCTCTCGGGGGGGG	767	Ş
180	ArgAlaSerLeuGlnPheAspLeuValLysAsnGlyGluSerIleAlaSerPhePheGln	161	문
766	CGGGCCAGCCTGCAGTTTGATCTGGTGAAGAATGGCGAATCCATTGCCTTTCCTTCC	707	γQ
60	GlyLysPheThrCysGlnValProGlyValTyrTyrPheAlaValHisAlaThrValTyr 160	141	뫄
706	647 GGCAAGTTCACCTGCCAGGTGCCTGGGGTCTACTACTTCGCCGTCCATGCCACCGTCTAC 7		QΥ

Search completed: June 21, 2003, 16:41:47 Job time: 166 secs

THIS PAGE BLANK (USPTO)

Db 315 CACCATGGCAGCCAGGGCTTGCCGGGCCGCGACGGCCGCACGGCCCCGCGACGGCCCCCGACGGCCCCCGACGGCCCCCGACGGCCCCCGACGGCCCCCGACGGCCCCCGACGGCCCCCC		75 CGGGGGCTGGACCACCAACTGGAGGGTCCGGAGTAGCGAGGGCCCCGAAGGAGGCCAACTGGAAGGAGGTCCGGAGTAGCGAGGGCCCCGAAGGAGGCCAACTGGAAGGAA	#### Conservative 0; Mismatche 0; Indels 0; Gaps 44 AGGGAGCGAACCAGGACTGGGGTGACGCAGGGCAGGGGGGGG	TSM: Homo sapiens RE: CDS CON: (198)(926) -804-1 -101 Similarity 94.8%; Score 1905	CURRENT FILING LAW NUMBER: US/09/140,804 EARLIER APPLICATION NUMBER: 60/056,983 EARLIER FILING DATE: 1997-08-26 NUMBER OF SED ID NOS: 47 SOFTWARE: FastSED for Windows Version 3.0 ERGTH: 1347 TYPE: DAM	140- ence nt N RAL ICAL ICAL ICAL E OL REI	RESULT 1
Db 1275 CCGGCCCTTTTCTCAGAGATCACTCAATAAACCTAAGAACCTCA 1348	-	1035 1035 1124 1095	915 1004 975	AY 824 GAGCCTAGGACCAAGTGTGGGTGCAGGTGGGTGACTACATTGGCATCTATGCC 883	704 675 764 735	584 555 644 615	QY 524 GTGCCTCCGCGATCCGCCTTCAGCGCCAAGCGCTCCGAGAGCCGGGTGCCTCCGCCCTCT 583 Db 495 GTGCCTCCGCGAAGCGCTTCAACCCCCAAGCCGGTGCTTT 1111111111111111111111111111

WHEE BLANK (USPTO)

							•
망	Qy	Qy	Db Qy	Д	Db .	Query Match Best Local Matches 24	RESULT 1 US-09-140-804-2 Sequence 2, A Patent No. 61 GENERAL INFOR APPLICANT: H TITLE OF INV CURRENT FILL CURRENT FILL CURRENT FILL LEARLIER FILL LEARLIER FILL SOFTWARE: FA SEQ ID NO 2 LEBGTB: 243 TYPE: PRT US-09-140-804-2
241 VFA 243	241 VFA 243	181 FFGGWPKPASLSGGAMVRLEPEDQVWVQVGVGDYIGTYASIKTDSTFSGFLYYSDWHSSP 240 	121 APLPFDRVLVNEQGHYDAVTGKFTCQVPGVYYFAVHATVYRASLQFDLVKNGESIASFFQ 180 	61 APGEKGEGGRPGLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSD 120 	1 MRPLLVLLLIGLAAGSPPLDDNKIPSLCPGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPG 60	/ Match 100.0%; Score 1325; DB 4; Length 243; Local Similarity 100.0%; Pred. No. 9.5e-114; nes 243; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	SULT 1 -09-140-804-2 -09-140-804-2 Sequence 2, Application US/09140804 Patent No. 6197930 GENERAL INFORMATION: APPLICANT: Sheppard, Paul O. APPLICANT: Sheppard, Paul O. APPLICANT: HUMEN, JACQUELINE M. TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS FILE REFERENCE: 97-49 CUCRENT APPLICATION NUMBER: US/09/140,804 CURRENT FILING DATE: 1998-08-26 EARLIER APPLICATION NUMBER: 60/056,983 EARLIER FILING DATE: 1997-08-26 NUMBER OF SEQ ID NOS: 47 SOFTWARE: FASTSEQ for Windows Version 3.0 SEQ ID NO 2 LENGTH: 243 TYPE: PRT ORGANISM: Homo sapiens

(OTTEN) WAGE BLANK (USPTO)